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CONTENTS OF NO. II., VOL. XXIII.

ARTICLES.

ART.	PAGE.
I. THE OPIUM TRADE: AS CARRIED ON BETWEEN INDIA AND CHINA, INCLUDING A SKETCH OF ITS HISTORY, EXTENT, EFFECTS, ETC. By NATHAN ALLEN, M. D., of Massachusetts	147
II. THE PRECIOUS METALS, COINS, AND BANK NOTES.—PART I.—The Utility of Gold and Silver, and the Properties which fit them for Measures of Value and for Currency, though they do not furnish an invariable Standard of Value—The quantity of pure Silver and Gold, and of Alloy in the Coin of the United States and of Great Britain at different periods—Mr. Jacob's estimates of the amount of Coin in the Roman Empire and in Ancient Europe—Production of Gold and Silver from 1492 to 1840, and Gregory King's estimate of the Supply in 1500, 1600, and 1696—The wear and loss of Coin—The consumption of the Precious Metals in the Arts, making Plate, and for all purposes other than coining—The amount exported to Asia and the amount of Coin and Bullion in Europe and America at different periods from 1500 to 1840. By EZRA C. SEAMAN.....	159
III. COFFEE: AND THE COFFEE TRADE.....	172
IV. COMMERCE OF HAMBURG IN 1849 AND PREVIOUS YEARS.....	177
V. HOW SHOULD RAILROADS BE MANAGED? By DAVID M. BALFOUR, Merchant, of Massachusetts.....	188

JOURNAL OF MERCANTILE LAW.

Commercial Code of Spain.—No. XIII. By A. NASH, Esq., of the New York Bar.....	199
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COMMERCIAL CHRONICLE AND REVIEW:

EMBRACING A FINANCIAL AND COMMERCIAL REVIEW OF THE UNITED STATES, ETC., ILLUSTRATED WITH TABLES, ETC., AS FOLLOWS:

General Prosperity as compared with 1840—Accumulation of Capital—Perspective rise in Securities—Supplies of California Gold—Import of Gold into the United States—Imports into the Port of New York, distinguishing Dry-goods—Proportion of National Imports into New York—Operations of the Assistant of Treasury—Custom of Port of New York—Exports of Port of New York—Exports of Provisions from the United States to Great Britain—Progress of Exports—Effect on Value of Productions—Import of Food into Great Britain—Balance of Trade with Great Britain in 1849 as compared with 1836, etc. 204-309

VOL. XXIII.—NO. II.

COMMERCIAL STATISTICS.

Import of Foreign Merchandise into the United States.....	209
Product and Consumption of Sugar throughout the World.....	216

COMMERCIAL REGULATIONS.

Tariff of British Guiana for 1850-51.....	217
Export duties on Oporto Wine.....	219
Of the Decimal Coinage in England.....	219
Of Duties on Sugar and Molasses.....	220
Of the Import of Foreign Coal in Steamers.....	221
Postal Arrangements between France and England.....	221
Passport Regulations to France and Belgium.....	221
Tariff of Freight on Railways in Georgia.....	222
Foreign Merchandise in Transitu.....	222

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

The Recent Counterfeit Gold Coins.....	223
Condition of the New Orleans Banks.....	225
Condition of the Banks in the United States.....	225
Bank of the State of South Carolina.....	226
United States Treasury Notes Outstanding, July 1, 1850.....	227
Condition of the New York City Banks.....	228
Income and Expenditure of the British Government.—Meeting of Spanish Bond-holders, London.....	229
Law of Ohio Restraining Banks from Usury.....	230
Statistics of British Savings Banks.....	231

NAUTICAL INTELLIGENCE.

Great Circle Sailing.—Port of Aveiro, in Portugal.—Entrances to the Thames.....	231
Registered Safety Yacht, or Life-boat.—New Steering Apparatus.....	232
Depths of the European and Open Seas.....	232
Value of Sea Birds to Mariners.....	232

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

The Alabama and Tennessee River Railroad.....	233
American vs. English Railway Management.....	236
Passages of the Asia, Europa, and Atlantic.....	238
Boston and Maine Railroad.....	239
North and East River Steamboats.....	239
Revenue of British Railways.....	241

JOURNAL OF MINING AND MANUFACTURES.

Gutta-Percha.....	241
Progress of Cotton Factories in the West.....	244
Production and Manufacture of Sugar in Louisiana.....	245
Silver Mines in Ireland.....	246
Early History of Pins in England.....	246
Cotton Factories in Alabama.....	247
Cotton Manufactures at Columbus, Georgia.....	247
Statistics of Providence (R. I.) Manufactures.....	247

MERCANTILE MISCELLANIES.

Salesmen vs. Salesmen in Retail Dry-goods Stores.....	248
The Vanilla of the Island of Bourbon.....	249
Ingenious System of Swindling.....	249

THE BOOK TRADE.

Notices of 32 New Works, or New Editions of Old Works.....	250-255
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HUNT'S
MERCHANTS' MAGAZINE
AND
COMMERCIAL REVIEW.

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AUGUST, 1850.  
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Art. I.—THE OPIUM TRADE:

AS CARRIED ON BETWEEN INDIA AND CHINA, INCLUDING A SKETCH OF ITS
HISTORY, EXTENT, EFFECTS, ETC.

PART II.

OPIUM is one of the oldest and most valuable articles in the *Materia Medica*. It is used in medicine, in its various preparations, under a greater variety of circumstances, and to accomplish more important results, than any other single article. Strike out this drug from the list of therapeutical remedies, and it would be very difficult for the whole class of narcotics or sedatives, or even both combined, to make good its place. The immortal Sydenham once remarked, that if he could be allowed only two weapons with which to combat disease, in its multifarious forms, opium would be his first choice. So on the other hand, the evils growing out of its abuse, surpass in magnitude, permanency, and extent, those of all other medicinal agents combined, unless it be that of ardent spirits.

By a series of experiments, it has been found that opium given in large doses, operates on the whole animal kingdom as a powerful poison, causing paralysis, convulsions, stupor, and death; and the greater the development of the nervous system, the more marked and diversified the effects of the drug. So in reference to the different races, as well as individuals of each race, its operations are not uniform. On the Indian and negro, who have a predominance of the sanguine, lymphatic, or muscular temperament, its effects partake more of an animal nature; but where there is a greater development and activity of the brain, together with the nervous system, it operates more directly and effectively on the mind. At the same time, its deleterious effects on the body are by no means diminished.

The effects of opium on the human system depend very much upon the quantity and frequent use, as well as the age, temperament, habits, idiosyncrasy, &c., of the individual. Its first and most common effect is to excite the intellect, stimulate the imagination, and exalt the feelings into a state of great activity and buoyancy, producing unusual vivacity and brilliancy

in conversation, and, at the same time, the most profound state of perfect self-complacency. All idea of labor, care, and anxiety, vanish at once from the mind. Then follow a succession of gorgeous dreams, or a continued state of ecstasy, almost indescribable.

There seems to be a wonderful power in the use of this drug, to attract and captivate. It holds out a temptation far more powerful than that of any other intoxicating agent. Such is the testimony of all experience, as well as observation in the matter. This fascination does not arise merely from that passion in human nature for excitement—that yearning after stimulus, and that horror of ennui which crowd the Parisian theatre, the English gin palace, and the American bar-room—but from having experienced or heard of that peculiar state of ecstasy which can be produced only by this drug, and which has not inappropriately, in some respects, been termed the “Chinese Heaven.”

It is the *after*, or *secondary* effects of this drug, which have such a destructive influence on the constitution. Its continued use destroys the natural appetite, deranges the digestive organs, impedes the circulation, and vitiates the quality of the blood, depresses the spirits, and gradually weakens the power of the involuntary nerves, as well as the volitions of the mind, thereby taking away the powers of free agency, and converting the man into the brute. How expressive the remark once made by a native Chinese, *It is not the man who eats opium, but it is opium that eats the man.*

The practice of *eating* opium, as a luxury, has prevailed for more than a century in Persia and Turkey, but that of *smoking* it, originated at a much later period, and has been confined mostly to China and its adjacent provinces. The effects of the latter practice, we believe, are far more pernicious than the former. The truth of this position is supported by two arguments: first, the different *mode* of receiving the drug into the system; and secondly, from an examination of the *facts* in the case. When opium is taken into the stomach, besides its local effects, its influence is communicated both by the sentient nerves of the stomach to the cerebro-spinal system, and thence to the whole animal economy, and by absorption into the blood through the veins and lymphatics. But when opium is inhaled into the lungs, it comes in direct contact with a far more extended and delicate tissue, composed in a great measure of nerves, and not only enters the circulation more or less by absorption, but, at the same time, by its inherent nature, contracts the air-cells of the lungs in such a manner as to prevent *the blood from receiving its due proportion of oxygen*. This radical change in the quality of the blood must have a most destructive influence. The manner of smoking opium differs materially from that of tobacco. The process consists in taking very long whiffs, thereby expanding the lungs to their utmost capacity, and communicating the influence of the drug to all the air-cells, and, at the same time, retaining it there as long as possible. This secret explains in part the almost instantaneous and powerful effect which it exerts upon the whole system.

In the former case, the poison enters the system very much diluted with other ingredients; but, in the latter, it is received in a purer and more concentrated form, and its deadly effects fall more directly upon the vital organs of the system. Now as to the *facts* in the case. Travelers in Persia, Turkey, and other countries where the vice of opium eating has existed for a long time, do not represent the evils to be near as great as those of opium smoking in China. The change produced by the former practice upon the

physical system is not characterized by so rapid or marked progress. Its victims, too, retain a better control, as well as a longer use of their mental faculties, and are known oftener to reform. Other essential points of difference might be noticed, but we will here introduce a brief statement from the Chinese themselves, as well as others, who have been careful observers of the effects of smoking opium.

A distinguished Chinese scholar, in a memorial to the emperor, says:—"Opium is a poisonous drug, brought from foreign countries, and, when the poison takes effect, the habit becomes fixed, and the sleeping smokers are like corpses—lean and haggard as demons." He proceeds to illustrate, in detail, its effects under these heads—it exhausts the animal spirits—impedes the regular performance of business—wastes the flesh and blood—dissipates every kind of property—renders the person ill-favored—promotes obscenity—discloses secrets—violates the laws—attacks the vitals, and destroys life. Another Chinese, (holding a high office in government,) speaking of opium-smokers, remarks that "when the habit becomes inveterate, it is necessary to smoke at *certain fixed hours*. Time is consumed, men's duties are forgotten, and they can no longer live without this poison. Its symptoms are difficulty of breathing, chalky paleness, discolored teeth, and a withered skin. People perceive that it hurries them to destruction, but it leaves them without spirit to desist." Another government officer writes to Sir Henry Pottinger, that "opium is an article whose flowing poison spreads like flames. It is neither pulse nor grain, yet multitudes of our Chinese subjects consume it, wasting their property and destroying their lives; and the calamities arising therefrom are unutterable! How is it possible to refrain from forbidding our people to use it. In another state paper this evil is described by one of the emperor's ministers, "as a fearful, desolating pestilence, pervading all classes of people, wasting their property, enfeebling their mental faculties, ruining their bodies, and shortening their lives."

Dr. G. H. Smith, who resided some years as a surgeon at Penang, describes the effect of opium-smoking, in the *Medico-Chirurgical Review* for April, 1842, as follows:—"The hospitals and poor-houses are chiefly filled with opium-smokers. In one that I had the charge of, the inmates averaged sixty daily; five-sixths of whom were smokers of Chandoo. The baneful effects of this habit on the human constitution are conspicuously displayed by stupor, forgetfulness, general deterioration of all the mental faculties, emaciation, debility, sallow complexion, lividness of lips and eyelids, languor and lack-lustre of eye, appetite either destroyed or depraved. In the morning, these creatures have a most wretched appearance, evincing no symptoms of being refreshed or invigorated by sleep, however profound. There is a remarkable dryness or burning in the throat, which urges them to repeat the opium-smoking. If the dose be not taken at the usual time, there is great prostration, vertigo, torpor, and discharge of water from the eye. If the privation be complete, a still more formidable train of phenomena take place. Coldness is felt over the whole body, with aching pains in all parts. Diarrhoea occurs; the most horrid feelings of wretchedness come on; and if the poison be withheld, death terminates the victim's existence."

In the *London Lancet* for 1841, we find these observations, from James Hill, a surgeon of an English ship, which visited China in 1839:—"The habitual use of opium, as practiced by the Chinese, cannot fail to produce the most injurious effects upon the constitution. The peculiar, languid, and vacant expression, the sallow and shrivelled countenance, the dim and

sunken eye, and the general emaciated and withered appearance of the body, easily distinguish the confirmed opium-smoker. The mind, likewise, soon participates in the general wreck of the body ; and the unhappy individual, losing all relish for society, remains in a state of sottish indifference to everything around him but the deadly drug, now his only solace, which sooner or later hurries its victim to an untimely grave." Such is the testimony of two medical observers, whose education and professional duties gave them superior advantages for judging correctly of the effects of this drug.

Mr. R. M. Martin, who is well known as the author of several valuable works on India and the British Colonies, has recently published a large work on China. Mr. Martin for some time held the situation of her "Majesty's Treasurer for Colonial, Consular, and Diplomatic Services in China," and was also a "Member of her Majesty's Legislative Council at Hong Kong." His opportunities, therefore, of acquiring information, official and by observation, were superior, and in a chapter on this subject, vol. ii., page 176, he remarks thus :—"No language would convey a description of the sufferings of those to whom opium has become a necessary part of existence ; no picture could impress the fearful misery which the inmates of an opium-smoking shop exhibit. Those dens of human suffering are attended by unfortunate women—as opium in the early use is aphrodisiac, and as such prized by the Chinese. In few, but very few instances, if indeed in any, moderation in opium is exercised : once fairly begun, there is no cessation, until poverty and death ensue ; and when digestion has nearly ceased, and deglutition even becomes painful, the utmost effect of the drug is merely to mitigate the horrors of existence. Those who begin its use at *twenty*, may expect to die at *thirty* years of age ; the countenance becomes pallid, the eyes assume a wild brightness, the memory fails, the gait totters, mental exertion and moral courage sink, and a frightful marasmus or atrophy reduces the victim to a ghastly spectacle, *who has ceased to live before he has ceased to exist*. There is no slavery so complete as that of the opium-taker : once habituated to his dose as a factitious stimulant, everything will be endured rather than the privation ; and the unhappy being endures all the mortification of a consciousness of his own degraded state, while ready to sell wife and children, body and soul, for the continuance of his wretched and transient delight ; transient indeed—for at length the utmost effect produced is a temporary suspension of agony ; and finally no dose of the drug will remove or relieve a state of suffering which it is utterly impossible to describe. The pleasurable sensations and imaginative ideas arising at first, soon pass away ; they become fainter and fainter, and at last entirely give place to horrid dreams and appalling pictures of death ; spectres of fearful visage haunt the mind ; the light which once seemed to emanate from heaven is converted into the gloom of hell : sleep, balmy sleep has fled forever ; night succeeds day only to be clothed with never-ending horrors ; incessant sickness, vomiting, diarrhoea, and total cessation of digestive functions ensue ; and death at length brings, with its annihilation of the corporeal structure, the sole relief to the victim of sensual and criminal indulgence. The opium-shops which I visited in the East were perfect types of hell upon earth."

Lord Jocelyn, who was engaged as a military secretary in the campaign of 1840, thus adverts to the use of opium as witnessed at Singapore : "One of the streets in the center of the town is wholly devoted to shops for the sale of this poison ; and here, in the evening, may be seen, after the labors of the day are over, crowds of Chinese, who seek these places to satisfy

their depraved appetites. The rooms where they sit and smoke are surrounded by wooden couches, with places for the head to rest upon, and generally a side room is devoted to gambling. The pipe is a reed of about an inch in diameter, and the aperture in the bowl for the admixture of opium, is not larger than a pin's head. The drug is prepared with some kind of conserve, and a very small portion is sufficient to charge it, one or two whiffs being the utmost that can be inhaled from a single pipe, and the smoke is taken into the lungs as from the hookah in India. On a beginner, one or two pipes will have an effect, but an old stager will continue smoking for hours. At the head of each couch is placed a small lamp, as fire must be held to the drug during the process of smoking; and from the difficulty of filling and properly lighting the pipe, there is generally a person who waits upon the smoker to perform that office. A few days of this fearful luxury, when taken to excess, will give a pale and haggard look to the face, and a few months, or even weeks, will change the strong and healthy man into a little better than an idiot skeleton. The pains they suffer when deprived of the drug, after long habit, no language can describe; and it is only when to a certain degree under its influence that their faculties are alive. In those houses devoted to their ruin, these infatuated people may be seen at nine o'clock in the evening in all the different stages. Some entering, half distracted, to feed the craving appetite they have been obliged to subdue during the day; others laughing and talking wildly under the effects of a first pipe, whilst the couches round are filled with their different occupants, who lie languid, with an idiot smile upon their countenance, too much under the influence of the drug to care for passing events, and fast emerging to the wished for consummation. The last scene in this tragic play is generally a room in the rear of the building, a species of dead-house, where lie stretched those who have passed into the state of bliss which the opium-smoker madly seeks—an emblem of the long sleep to which he is blindly hurrying."

Such is the testimony of two officers holding important trusts under the English government, as to the pernicious effects of this practice among the Chinese; and we might add many similar statements from travelers and other residents in China, but deem it unnecessary.

In view of these facts, the question naturally arises, what has China done to oppose the introduction, or arrest the progress of such evils? Has she ever, as a government, adopted any decided, systematic measures to prevent them?

Prior to the year 1800, opium was included in the tariff of maritime duties, under the head of medicinal drugs, and was treated by government as an article intended exclusively for medical purposes; and the duty exacted upon its importation, was a mere nominal sum, without any particular reference to raising a revenue. But the practice of *smoking* the "*vile dirt*" had already taken deep root, and its evil effects were beginning to awaken the attention of the Chinese government. In 1799, one of the emperor's chief ministers, "fearing lest the practice of smoking opium should spread among all the people of the inner land, to the waste of their time, and the destruction of their property," presented a memorial requesting that the sale of the drug should be prohibited, and that offenders should be made amenable to punishment. Soon after this, the Chinese government enacted special laws to prevent both its importation and its use, denouncing upon the seller and smoker of the poison the bastinado, the wooden collar, imprison-

ment, banishment, and the entire confiscation of his property; yes, even more, the severe penalty of capital punishment, either by public decapitation or strangulation.

In the years 1809-15-20-30, and 34, edicts, one after another, were sent to Whampoa, Macao, and Canton, proclaiming these laws, and not unfrequently the severest penalties were inflicted upon such Chinese subjects as violated them. Notwithstanding all this, the trade kept constantly increasing. In 1838 it amounted to between 39,000 and 40,000 chests. The emperor, finding that the measures thus far employed had failed to check the traffick, after consulting his ministers, determined to depute an Imperial Commissioner to Canton, clothed with the highest powers and authority. The officer chosen for this purpose was Lin, a man distinguished for his talents, acquirements, and knowledge of maritime affairs. Lin arrived at Canton in March, 1839, and immediately gave orders that all the opium, whether stored in the factories or on board of ships in the harbor, should be at once surrendered. He succeeded in compelling the merchants to give up 20,000 chests, and to sign a bond that they would forever cease trading in the article. These 20,000 chests of opium were publicly destroyed in the vicinity of Canton, according to the commands of the emperor. This bold measure of Lin to suppress the traffic led to a war between England and China, commonly called the "opium war."

As the history and character of this war are so well understood we need not here enter into details respecting it, further than briefly to notice its connection with, and the effect of its results upon the opium trade. One argument advanced in favor of the war was to obtain indemnity for the loss of these 20,000 chests, estimated to be worth \$12,000,000. Capt. Elliot, the representative of the English government in China, in his public call on British subjects to surrender all the opium in their possession into his hands, to be delivered over to the order of Commissioner Lin, declared himself responsible for its loss on behalf of Her Majesty's government. And accordingly, the merchants, in confirmation of this pledge of Capt. Elliot, afterwards sent a petition to the lords of Her Majesty's government, urging the following reasons as a claim:—"That the trade in opium had been encouraged and promoted by the Indian government, under the express sanction and authority, latterly, of the British government and Parliament, and with the full knowledge, also, as appears from the detailed evidence before the House of Commons, on the renewal of the last charter, that the trade was *contraband* and illegal."

The English government itself had, in fact, directly approved of the traffick, and was deeply interested in its continuance. For we find that the Parliamentary committee appointed in 1832, expressly for the purpose of considering the opium monopoly in all its bearings, moral, political, and economical, concluded their report, which was accepted, as follows:—"In the present state of the revenue of India, it does not appear advisable to abandon so important a source of revenue—a duty upon opium being a tax which falls principally upon the foreign consumer, and which appears, upon the whole, less liable to objection than any other which could be substituted."

At the time of the war, the East India Company was receiving between \$10,000,000 and \$12,000,000 of revenue annually from this source. Though it was all collected in India, yet the whole trade, the cultivation of the poppy, and the manufacture of the opium, the sale of the drug in Bombay and Calcutta, and its transportation to China, was encouraged by the government.

The opium merchants sailed under the British flag, and were defended by British arms, and looked to the English government for protection. At the same time, it was known to all parties concerned, that the traffick was *contraband and illegal*.

Thus we see that England was an *interested* party, and would naturally be disposed to justify recourse to war, in order to secure indemnity for loss, and a continuance of the trade. The Chinese government had endeavored to arrest the traffick by punishing severely, and in various ways, their own subjects, and also remonstrating, entreating, and threatening the English; but all to no purpose. They saw their country and people becoming impoverished and ruined—the severe punishment of their own subjects of no avail so long as the English continued to sell hundreds and thousands of chests of opium, in spite of entreaties and threats, and in contempt of all law.

That the Chinese government has always been earnest and sincere in resisting the introduction of opium, there can be no doubt. Their laws prove this fact, and such is the testimony of all disinterested foreigners residing in China. Says a writer in the Chinese Repository, (for 1840, p. 416):—"The opposition of the Chinese government to the opium trade has been steady and strong during a period of forty years; the prohibitions have been as clear and as explicit, and the measures to carry them into effect as constant and vigorous as the combined wisdom and power of the emperor and his ministers could make them." They refused, also, to allow the cultivation of the poppy in China, which, in soil and climate is admirably fitted for its production.* If they would only allow the opium to be produced in China, its importation would soon cease, and thus a heavy drain of silver be saved to the nation. They will not, however, impose any tax or duty upon its importation, though they might in this way raise a large revenue. And all proposals or suggestions in reference to encouraging the cultivation of the poppy, or that the trade in the drug be legalized, originated in the opinion and fear that its contraband introduction *could not be prevented*. This is a lamentable state of things in a great nation like China, with 350,000,000 of inhabitants.

The war was not of long continuance. The Chinese, finding themselves soon overpowered by British arms, and their country being rapidly brought into subjection to foreign power, were ready to receive proposals of peace on almost any terms. The leading articles of treaty proposed by the English plenipotentiary were:—The Chinese government to pay the English twenty-one millions of dollars before the expiration of three years; twelve being for the expenses of the war, three for debts due English merchants, and six for the opium destroyed. Five of the principal cities of China, namely: Amoy, Canton, Ningpo, Shanghai, Fughchan, to be thrown open to British trade and residence, under such restrictions as shall be satisfactory, and the island of Hong Kong to be ceded outright, and forever, to the queen of England. The Chinese endeavored to introduce into the articles of agreement a prohibition of all traffick in, or importation of opium, but failed in the attempt. So that this subject, as far as any restriction or discontinuance was concerned on the part of the English government, was left, after the war, precisely where it was before. But it was far otherwise with China. Five of her chief seaports being now freely opened for general trade and commercial in-

* It should be stated that the poppy is cultivated to some extent in Yunnan and other provinces in the southern part of China, but against the express laws of the Chinese government.

tercourse, afforded still greater facilities, and gave a more permanent foothold than ever for the opium traffick. The Canton Circular of 1846, speaking of the high price which the drug brought at that time, very significantly remarked :—"We need not ask the question who has been chiefly benefited by the war in China, justly called the '*opium war*.'"

Besides these five cities being thrown open to foreign trade, the island of Hong Kong, possessing one of the best harbors in the world, and easily accessible to any part of the Chinese coast, became, after the war, the sole property of the English government. This place was selected as a great depot for trade, and a large amount of money has been expended here on public improvements, such as roads, wharves, buildings, &c. Opium constitutes here one of the principal articles of commerce. Besides numerous shops and stores, several large receiving ships are stationed the year round in the harbor. In 1845, an important event occurred here in the history of the trade, namely :—Governor Davis licensed the public sale of the drug by retail. Mr. Martin, one of the Executive Council, expressing his dissent, says afterwards :—"Twenty opium shops have been licensed in Hong Kong, within gunshot of the Chinese empire, where such an offense is death! Hong Kong has now, therefore, been made the lawful *opium smoking-shop*, where the most sensual, dissolute, degraded, and depraved of the Chinese may securely perpetrate crimes which degrade men far below the level of the brute, and revel in a vice which destroys body and soul; which has no parallel in its fascinating seduction, in its inexpressible misery, or in its appalling ruin. When the governor proposed the conversion of Hong Kong into a legalized opium-shop, under the assumed license of our most gracious and religious sovereign, I felt bound as a sworn member of Her Majesty's Council in China to endeavor to dissuade him from this great crime; but no reasoning would induce him to follow the noble example of the emperor of China, who, when urged to derive a revenue from the importation of opium, thus righteously recorded his sentiments in an answer which would have been worthy of a Christian monarch :—'*It is true I cannot prevent the introduction of the flowing poison: gain-seeking and corrupt men will, for profit and sensuality, defeat my wishes; but nothing will induce me to derive a revenue from the vice and misery of my people.*' But money was deemed of more consequence in Hong Kong than morality; it was determined, in the name of Her Majesty, to sell the permission to the highest bidder by public auction—of the exclusive right to poison the Chinese in Hong Kong—and to open a given number of opium smoking-shops, under the protection of the police, for the commission of this appalling vice. Would we have acted thus towards France or Russia, and established a smuggling depot on their shores in a prohibited and terrific poison? We dare not. Why, then, should we legalize and protect this dreadful traffick on an island given to us by the government of China as a residence, and for commercial intercourse."

Thus the war, instead of either terminating, or even checking this evil, has actually afforded greater facilities for its extension. The number of chests of opium imported into China has continued to increase every year, until now they amount to 60,000 chests, estimated to be worth over \$40,000,000; a sum greater, by one-half, than is paid by that great empire on the whole imports from all other nations. New market-places for the sale of the drug are opening every year along the coast, up the rivers, and far into the interior of the country.

The Chinese laws prohibiting its use and traffick remain unchanged, though, to all practical purposes, they are a dead letter on their statute book. Since the war with England, scarcely any vigorous attempt has been made to enforce them, while, prior to that event, punishment for their violation was of very frequent occurrence.

It is somewhat difficult to account for the present inactive course of the Chinese government, in respect to an evil which is exerting such a destructive influence on that people. Mr. Williams, in his work on China, remarks that "this conduct can be explained only on the supposition that having suffered so much, the emperor and his ministers thought safety from future trouble lay in enduring what was past curing; they had already suffered greatly in attempting to suppress it, and another war might be caused by meddling with the dangerous subject, since, too, it was now guarded by well-armed vessels. Public opinion was still too strong against, or else consistency obliged the monarch to forbid legalization, which he could hardly avoid acknowledging was the least of two evils."

Recent intelligence from China states that the emperor Tankwang, who had reigned for about thirty years, is dead, and that one of his sons has succeeded to the throne. Many foreign residents in China are of the opinion that under a new administration of government, the opium traffick will be legalized, and the native cultivation of the poppy encouraged. Bad as the use of the article is, this measure would undoubtedly work far better, in a political and commercial point of view, as well as improve the finances of the nation. It would prevent the immense drain of specie, and cut off the enormous profits of foreign merchants. Mr. Williams states this remarkable fact, that the "opium trade has been for fifteen years nearly *fifteen millions of dollars in excess of the regular exchange of commodities*, and the drainage of the country for this balance will probably go on so long as the taste for this pernicious narcotic continues, or there is specie to pay for it." Fifteen millions of dollars annually, for fifteen years, make two hundred and twenty-five millions, to which, if we add the twenty one millions paid the English at the close of the war, we have then *two hundred and forty-six millions of dollars*, drained from China since the year 1835, over and above the value of all its other exports. Thus, notwithstanding the immense quantities of tea, silks, and other productions which are annually exported from China, their combined value does not begin to equal the expenditure for this single article of luxury, or rather of destruction, which brings no equivalent whatever in return. And all this drain of specie occurs, too, in a land where there is no national bank, or system of credit to enable the government or people to get along with a substitute for the precious metals. Some recent writers on China represent its finances to have been in an embarrassed state for several years past, which were attributed in part to a diminution of its revenue, but mainly to the vast quantity of silver that left the territory to pay for opium. But this continued and immense drain of specie constitutes only a small part of the evils which this poison inflicts upon that great empire. *Loss of health and time, human suffering, mental imbecility, moral depreciation, and destruction of life, are evils which cannot be reckoned in dollars and cents.*

One of the results of this traffick is, that it now constitutes the most powerful obstacle in the way of trading in other articles with China. The Canton Circular for 1846, a commercial paper, speaking of the state and prospects of trade generally in China, remarks that "with respect to the opium trade,

as at present conducted, it is certainly a great evil, and *indirectly injures the sale of other merchandise.*" This evil prejudices the Chinese against all *commercial* intercourse with foreigners, and destroys all desire or ambition on their part to improve their circumstances, or cultivate habits of industry, besides stripping them of all their resources. Had the influence of this drug never been felt in China, we have good evidence to believe that it would have proved the best market in the world for the sale of European and American manufactures. It is a fact that in proportion as the opium traffick has increased, that of British manufactures has decreased. It has been said that the Chinese were adverse to commercial intercourse with foreign nations; but what is the evidence in proof of this statement? Lord Napier, whose testimony is entitled to the greatest respect, wrote in the year 1834 that "the Chinese are most anxious to trade with us," and again, "it is a perfect axiom that the Chinese people are most anxious for our trade from the great wall to the southern extremity of the empire." Sir George Robinson also states that in 1835, "the people are intensely desirous to engage in traffick." Mr. Gutzlaff affirms that the "English woollens are in great demand, yet we have still to look for that time when the spirit of British enterprise shall be roused; for in regard to China it is almost dormant." Lord Napier, indeed, said that the "Tartar government was anti-commercial." It may be so. But why is not commerce carried to the fullest extent of the privileges which are possessed? Simply, as Capt. Elliot stated, because the opium traffick is "intensely mischievous to every branch of the trade." Mr. Dunn, who spent many years among the Chinese, says, "they possess a strong predilection for commerce, and a great taste for foreign manufactures. The principal barrier to the rapid increase in the consumption of British goods is, I conceive, the opium trade. Stop this, and you will have their warmest friendship—a friendship that will so facilitate and increase the consumption of your manufactures that a few years only would show them to be your best customers." Mr. Martin inquired of one of the chief officers at Shanghai, how trade could be best promoted; he immediately, and with great sternness, answered, *cease sending us millions worth of opium, and our people will have more money to purchase your manufactures.*"

Another feature of this trade deserves particular notice, namely: *its smuggling character.* All enlightened, and even civilized nations, have ever regarded it as a fundamental principle in trade, that a nation may enact whatever laws of commerce its interests may be supposed to require. It has a right* to permit or restrict, to encourage or prohibit, any articles of merchandise it may deem necessary. Any known or intended infringement or violation of this right by another nation, is, and should be considered, one of the greatest national crimes. And to take advantage of the peculiar circumstances of a nation, and force it to yield partially or wholly this right, to its great detriment, is, to say the least, highly *dishonorable.* How has this established right been respected by the English government in its intercourse with China in the sale of opium? At first, and so long as it was employed for medicinal purposes only, its importation with a small duty was allowed. But when it began to be used somewhat extensively for its intoxicating qualities, followed by the most pernicious effects, not only in

* This principle or right is based on the common usage of all nations, and not on that great principle of Christian Ethics, "Love thy neighbor as thyself." The extreme exclusiveness and arrogant assumptions of the Chinese in their treatment of other nations, cannot, in all instances, be justified by the fundamental principles of Christianity, or of universal brotherhood.

draining the country of its legal currency, and thereby deranging trade generally, but in the loss of time, health, property, mental and physical capacity for labor, and greatly increasing theft, fraud, licentiousness, violence and premature death, the Chinese government, to prevent these dreadful evils, and save their country from ruin, utterly prohibited its importation, thus making it a *contraband* article.

Their right to do this has never been called in question, as there was no violation of treaty stipulation, and the interests of the country being jeopardized, required such a measure. But it was entirely disregarded. The drug has been smuggled into that country in rapidly increasing quantities for more than fifty years, in face of wholesome laws, earnest remonstrance, and severe threatenings, and the direful effects on the inhabitants of China, all of which were well known to the parties concerned.

A system of smuggling on a greater scale, and with greater profits, followed at the same time with more disastrous results, the world has never witnessed. It is true the English are not the only party engaged in the opium trade. Some eight or ten vessels, devoted exclusively to this traffick, are owned by *American* merchants, and sail under the *American* flag. The same censures which are applied to the English, should also be meted out to all Americans enlisted in a business so odious in its character, and so destructive in its influence. It is no better than the African slave trade, and should be exposed and condemned by every enlightened and Christian nation.

The missionaries of the American Board, in their last communication from China, (*Missionary Herald*, June, 1850,) describe the effects of the drug, and the present state of things in reference to this evil, as follows:—"The *contraband* trade in opium induces a disregard of all law, and leads to smuggling in other articles; it raises up and encourages a set of miscreants and pirates along the coast; it gives rise to constant strife between the revenue officers and the smugglers, the former of whom keep a vigilant oversight of every entrance; not so much to prevent its coming, as to collect their fees for allowing it to pass, it tends to destroy all moral rectitude, and strengthens habits of vice both among the people and the government officers. Its use, as well as its abuse, destroys property, health, intellect, and life. Its introduction constantly sets against us the best portion of the Chinese people, who associate foreigners of every name and occupation with this pernicious traffick. The importation during the past year has probably equaled eight millions of pounds, and this year it will, perhaps, exceed that amount. The Chinese government has given up its efforts to retard its use, winks at the cultivation of the poppy, is obliged to connive at the bribery of its revenue officers, and many persons think that the trade will be legalized, on the coming of a new emperor to the throne. In a national and commercial point of view, such a step would be desirable." We can see no other alternative, but that the Chinese government will be compelled to resort to this course, in self-defense, and preservation of their empire.

What is to be the probable result of this traffick upon China, is a question of momentous interest. How long is it to continue to drain the country of its specie—embarrass its finances—corrupt its officers—impoverish and ruin its inhabitants? Are the difficulties attending this *contraband* trade still to be the occasion of frequent broils, and interruptions of commercial intercourse, as in years past, between the Chinese and foreigners? Must there be another opium war? Is this ancient and extensive country to be ruined commercially,

politically, and morally? Will the Chinese suffer the devastations of this evil to go on till the great Celestial Empire, with her three hundred and fifty millions of inhabitants, loses, like some neighboring provinces, her own independence, and become tributary to a foreign power? Or, to escape such a melancholy fate, will her government either resort to the extensive cultivation of the poppy within her own borders, or else legalize the importation of the drug from abroad? Are there any *rational* prospects that China will ever extricate herself from these dreadful evils? We are constrained to reply, that neither the light of experience, nor the prospects of the future, afford us any well-grounded hope of such a desirable result.

Who is responsible, then, for the continuance of these evils? And who has power, and to whom does the duty belong to put an end to this traffick? the merchant engaged in carrying it on? or the East India Company, whose treasury is so much enriched by its profits? or the English government, that confers upon this company such chartered privileges? Formerly, the whole trade, not only in India, but the transportation to, and the sale of the drug in China, was a complete monopoly of the government; but now that monopoly is confined to India, whence all the supplies come, and where the government has the entire control of its cultivation, manufacture, and sale, which it can at any time either abandon or prohibit. Notwithstanding, the *Friend of India* of November 8th, 1849, says "the opium revenue has now become so important an element in our financial system that it is difficult to imagine how the machine of government could be carried on without it." And the *Bombay Gazette* of November 20th, 1849, states that "British India now really seems to be supported by the cultivation of a poisonous drug, and selling it or smuggling it into China."

We have no reason whatever to expect that the merchants will voluntarily relinquish a traffick so lucrative, nor that the East India Company, (an incorporated body, in common parlance, *without a soul*), will totally change its revenue laws, which have been constantly increasing its resources for more than fifty years. We must then look to the English government as primarily and chiefly responsible for this traffick, and to Parliament in particular. Clarkson and Wilberforce, by their devoted and unwearied labors to abolish slavery in the British possessions, won immortal fame; but here is an evil of far greater magnitude, enslaving the souls as well as bodies of many millions, fostered, too, for more than half a century by government itself. As the East India Company is shortly to petition Parliament for a renewal of its charter, who will cheerfully come forward, like Clarkson and Wilberforce, to examine into this evil, expose its terrible effects, and call for their removal?

How can the Chinese regard the English in any other light than wholesale smugglers and wholesale dealers in poison? The latter can expend annually over two millions of dollars on the coast of Great Britain to protect its own revenue laws, but, at the same time, set at bold defiance similar laws of protection enacted by the former. The English are constantly supplying the Chinese a deadly poison, with which thousands yearly put an end to their existence. In England, even the druggists are expressly forbidden to sell arsenic, laudanum, or other poison, if they have the least suspicion that their customer intends to commit suicide. But in China every facility is afforded, and material supplied under the British flag, and sanctioned by Parliament itself, for wholesale slaughter. How long will an enlightened and Christian nation continue to farm and grow a means of vice, with the proceeds of which, even when in her possession, a benighted and pagan na-

tion disdains to replenish her treasury, being drawn from the ruin and misery of her people? Where is the consistency or humanity of a nation supporting armed vessels on the coast of Africa to intercept and rescue a few hundred of her sons from a foreign bondage, when, at the same time, she is forging chains to hold millions on the coast of China in a far more hopeless bondage? And what must the world think of the religion of a nation that consecrates churches, ordains ministers of the gospel, and sends abroad missionaries of the cross, while, in the mean time, it encourages and upholds a vice which is daily inflicting misery and death upon more than four millions of heathen? And what must be the verdict of future generations as they peruse the history of these wrongs and outrages? Will not the page of history, which now records £20,000,000 as consecrated on the altar of humanity to emancipate 800,000 slaves, lose all its splendor, and become positively odious, when it shall be known that this very money was obtained from the proceeds of a contraband traffick on the shores of a weak and defenseless heathen empire, at the sacrifice, too, of millions upon millions of lives?

Art. II.—THE PRECIOUS METALS, COINS, AND BANK NOTES.*

PART I.

THE UTILITY OF GOLD AND SILVER, AND THE PROPERTIES WHICH FIT THEM FOR MEASURES OF VALUE AND FOR CURRENCY, THOUGH THEY DO NOT FURNISH AN INVARIABLE STANDARD OF VALUE—THE QUANTITY OF PURE SILVER AND GOLD, AND OF ALLOY, IN THE COIN OF THE UNITED STATES AND OF GREAT BRITAIN AT DIFFERENT PERIODS—MR. JACOB'S ESTIMATES OF THE AMOUNT OF COIN IN THE ROMAN EMPIRE AND IN ANCIENT EUROPE—PRODUCTION OF GOLD AND SILVER FROM 1492 TO 1840, AND GREGORY KING'S ESTIMATE OF THE SUPPLY IN 1500, 1600, AND 1696—THE WEAR AND LOSS OF COIN—THE CONSUMPTION OF THE PRECIOUS METALS IN THE ARTS, IN MAKING PLATE, AND FOR ALL PURPOSES OTHER THAN COINING—THE AMOUNT EXPORTED TO ASIA, AND THE AMOUNT OF COIN AND BULLION IN EUROPE AND AMERICA AT DIFFERENT PERIODS FROM 1500 TO 1840.

GOLD and silver have been extensively used in the arts, for domestic utensils, ornaments, objects of luxury, and numerous other purposes, from the earliest times. Their great utility, and intrinsic value, together with their

* We take great pleasure in laying before our readers the tenth chapter of "*Essays on the Progress of the Nations in Productive Industry, Civilization, Population and Wealth*," by Ezra C. Seaman. The work was originally published in 1846. The author is now engaged in re-writing the work, and proposes to publish a new and revised edition in the early part of 1851. The following chapter, which the author has kindly furnished for our Journal, has been remodeled for the new edition; and by reason of information acquired during his residence in Washington, and an extensive system of comparisons, it has been rendered more complete, and entirely consistent with itself in all its parts, and with the facts of history, as far as they can be clearly ascertained. The arrangement of the matter is greatly improved, the errors corrected, as far as practicable, much of the old matter left out, and its place supplied from data more recent and more reliable. It forms, perhaps, the most accurate, complete, and, at the same time, comprehensive essay on the precious metals, coin, &c., that has ever been published in the present form; and, taken in connection with the California discoveries of gold, &c., it will be found highly interesting and useful to the banker, merchant, statesman, politician, and, indeed, to all who desire to become acquainted with the "facts and figures" which have such an important bearing upon this branch of political economy. The information, so far as the mints of the United States are concerned, is brought down by Mr. Seaman, from official sources, to the 30th of April, 1850. We cannot omit the opportunity, in closing this note, of commending the forthcoming edition of Mr. Seaman's valuable work to the readers of the *Merchants' Magazine*; and while we are not prepared to endorse or adopt every inference drawn, or opinion expressed, in its pages, we most sincerely and cordially recommend it as one of the most valuable and important publications of the nineteenth century:

beauty, durability, and the facility of converting them from one form into another, without much loss, has made them general objects of desire by the whole human family, and the universal currency of civilized nations, from the earliest periods of history.

As a currency, or money, they have been used as measures of value, and also as instruments or means of payment. On account of their durability, convertibility, and great intrinsic value, in proportion to their weight and bulk, they constitute the best and safest currency which the world can furnish; though a currency composed mostly of paper, based on the precious metals, is much cheaper, and more convenient. Gold and silver have an intrinsic value in the public estimation, to the full amount at which they pass as money; while bank notes, and other paper money, are but the representatives of value; and they are often only the evidence of an obligation to pay what it is not in the power of the obligor to pay, according to the terms of the obligation.

Even the precious metals do not constitute an invariable standard or measure of value; for their value, like that of anything else, depends upon the relative proportion between the supply and the demand; and when we compare their value in the market at periods distant from each other of a century or more, we find their fluctuation in value greater than that of breadstuffs; but as they are comparatively rare metals; as great labor is generally required to produce them; as the production of the mines is not affected by frosts, droughts, rains, and other changes of the seasons, and the quantity in use can never be suddenly increased or diminished, if you take periods of time of from one to ten years, they are subject to very little fluctuation, and furnish a standard of value almost perfect.

Nature has not determined the relative value of the two metals. That depends partly on the uses to which they may be applied, and the consequent demand for them, and partly on the production of the mines, and the average amount of each, produced by the employment of a given amount of labor and capital. Prior to the discovery of America, an ounce of gold was equal in value in Europe to about ten ounces of silver. The American mines have produced in quantity about forty times as much silver as gold, which caused a gradual rise in Europe of the relative value of gold, when compared with silver, until the former became in different countries, from fourteen to fifteen and a half times as valuable as the former; it was made fifteen times as valuable in the United States by the act of Congress of April, 1792, and sixteen times as valuable by the act of June, 1834. If the Russian mines should continue to furnish large supplies of gold, and the present anticipations should be realized of an immense and inexhaustible supply of gold from California, the relative value of gold must decline; and the time is not far distant when it will not be worth more than ten or twelve times as much per ounce as silver. But no fears need be apprehended that the aggregate amount of the precious metals will increase faster than the population, and the wants of commerce, and of the world of fashion. The probability is, that they will not increase as fast, and that if the price of gold should fall, the price of silver will increase more and faster than gold falls. It may be important for Congress to act on this question very soon, to reduce the relative price of gold to the former standard, of fifteen times the value of silver, and to increase the quantity of gold to be coined into a dollar; or else silver coin, being relatively more valuable to export than to use in this country, will be rapidly exported.

British coin, both gold and silver, is made of eleven parts pure metal, and one of alloy; every pound troy, or 12 oz. of standard silver or gold being composed of 11 oz. 2 pwts. of pure metal, and 18 pwts. of alloy. From the Norman conquest, in 1066, to the year 1300, a pound of standard silver, (that is 11 oz. 2 pwts. pure silver, and 18 pwts. alloy,) was coined into 20 shillings, or one pound, sterling money. The number of shillings into which the same quantity of silver was coined was increased from time to time, until in 1527 it was coined into 40 shillings, or two pounds, and soon after into 45 shillings; in 1560, and from that time until 1600, it was coined into 60 shillings; from 1600 to 1816 into 62 shillings; and since 1816 into 66 shillings. From 1543 to 1553, the coin was much more debased.

The number of grains of pure silver, and of pure gold, contained in one pound, or twenty shillings, sterling money, at different periods, have been as follows:—

Years.	Silver. Grains.	Gold. Grains.	Gold to silver. Grains.
1560 to 1600.....	1,776	160	1 to 11.1
1600 to 1604.....	1,718.7	157.6	1 to 10.9
1604 to 1626.....	1,718.7	141.9 to 128.8	
1666 to 1717.....	1,718.7	118.6 to 113	
1717 to 1816.....	1,718.7	113	1 to 15.2
Since 1816.....	1,654.5	113	1 to 14.28

Gold only is a legal tender in Great Britain for any sum above two pounds sterling.

The act of Congress of June, 1834, prescribes that all coins of the United States shall be nine parts pure silver, or gold, and one part alloy. By the act of April 12th, 1792, a dollar is required to contain 371½ grains pure silver, and the same by the act of June, 1834; gold being declared fifteen times as valuable as silver by the former act, and sixteen times as valuable by the latter act.

The number of grains of pure silver, and pure gold, contained in five dollars under each act, have been as follows:—

Years.	Silver. Grains.	Gold. Grains.	Gold to silver. Grains.
1792 to 1834.....	1,856½	123½	1 to 15
Since 1834.....	1,856½	116	1 to 16

The British gold sovereign is nearly equal in value to \$4 87, American gold coin, though it is declared by the act of 1834 worth only \$4 84. Calling a dollar 4s. 6d. sterling, the par exchange on England, payable in gold, is over 9½ per cent; payable in silver it is nearly 2 per cent in our favor; but as more than nine-tenths of the circulating coin of England is gold, and silver is sold in quantities at less than its legal value, as compared with gold, and the tenth part of an American eagle is worth only 4s. 1½d. sterling, in British gold, we may fairly reckon a dollar at 4s. 2d. sterling, and the real par exchange at 9 per cent nominal value.

III. The learned historical inquiry into the production and consumption of the precious metals made by William Jacob, Esq., of England, was published in 1831. Mr. Jacob says it has been estimated by several diligent inquirers, that the whole annual revenues of the Roman empire, in the time of Augustus, amounted to a sum equivalent to forty millions sterling of English money, of its present standard of fineness and weight. This seems not improbable, as the population of the empire has been generally estimated at over one hundred millions, during the first and second centuries of the

Christian era. He estimates the amount of the precious metals of gold and silver in the empire, at the death of Augustus, A. D. 14, as equal to the enormous sum of £358,000,000 sterling of English money; which seems to me incredible, considering that the knowledge of mining, and of the mechanical powers necessary to carry it on advantageously were then comparatively in their infancy, and that the mines of Europe, Asia, and Africa, have yielded very little since that time. He states that the mines were all nearly exhausted, and that the precious metals decreased from that period by friction and actual loss at the rate of 10 per cent every 36 years, leaving in the year A. D. 410 but £107,435,924; and in the year A. D. 806 but £33,674,256. The quantity named at the latter period seems more probable than the former.

All these estimates are vague conjectures, without any accurate and reliable evidence to support them. The amount of coin in Europe, at the discovery of America, is estimated by him at about £34,000,000 sterling, or \$163,000,000, which does not differ much from the estimates of other authors, and is probably not far from correct.

IV. All the record evidence, and the estimate of authors, merchants, and public officers, of the production of the American mines, from the discovery of America to the year 1803, were investigated with so much care and science by the learned M. Humboldt, that his estimates have been generally adopted as approximating as near to accuracy as is practicable. One thing, however, is very certain. He has greatly over-estimated the amount of gold and silver smuggled out of the colonies both of Spain and Portugal, without paying duty, and without being registered, or else their loss, and the amount used in the arts, and converted into plate, and other utensils and ornaments, has been much greater than has been generally estimated. The amount in circulation, as coin, has been overrated by almost every writer of the present century, except Storch; and yet, it is difficult to account for the consumption of the precious metals, unless the amount produced by the mines has been greatly overrated.

Baron Humboldt estimated the quantity smuggled, in order to avoid the payment of duties, and unregistered, as equal to one-fourth the amount registered in the Portuguese colonies, and to over one-fifth the amount registered in the Spanish colonies. This is all conjecture, and, so far as Mexico, Peru, and Chili are concerned, which have very few ports from which it could be smuggled, it strikes me that the estimate is too great, by more than half, to be probable.

TABLE NO. I.

STATEMENT OF M. HUMBOLDT OF THE VALUE OF GOLD AND SILVER EXTRACTED FROM THE MINES OF AMERICA FROM 1492 TO 1803, AS REGISTERED.

From the Spanish colonies.....	\$4,035,156,000
“ Portuguese colonies.....	684,544,000
Total registered.....	\$4,719,700,000
Estimated amount smuggled and not registered from Spanish colonies.....	816,000,000
From the Portuguese colonies.....	171,000,000
Amount of contraband, as estimated by him.....	\$987,000,000
Total production of the mines.....	5,706,700,000

NO. II.

The amount of the precious metals registered, and estimated by M. Hum-

boldt as smuggled, produced in the countries of America respectively, from the year 1492 to 1803, was as follows :—

	Registered.	Not registered.	Total.
Mexico, or New Spain.....	\$1,968,000,000	\$260,000,000	\$2,028,000,000
Peru and Buenos Ayres.....	1,936,000,000	474,000,000	2,410,000,000
Chili and New Granada.....	331,000,000	82,000,000	433,000,000
Portuguese colonies.....	684,000,000	191,000,000	855,000,000
Total.....	\$4,719,000,000	\$987,000,000	\$5,706,000,000

NO. III.

The average annual products of the gold and silver mines of Europe, Northern Asia and America, at the beginning of the present century, were estimated by M. Humboldt in millions of francs and millions of dollars, as follows :—

	Gold in francs.	Silver in francs.	Total in francs.	Total in dol's.
Europe.....	4,400,000	11,700,000	16,100,000	3,000,000
North Asia.....	1,800,000	4,800,000	6,600,000	1,200,000
America.....	59,500,000	176,800,000	236,300,000	44,300,000
Total.....	65,700,000	193,300,000	259,000,000	48,500,000

NO IV.

Estimate of M. Humboldt of the average amounts of gold and silver exported annually from America to Europe, and also the aggregate amounts exported during the under-mentioned periods, stated in millions of dollars ; to which I have added a column of deductions of one-twelfth part the aggregate amount, for supposed over-estimates, and the amount exported, by my estimate, on making such deductions :—

Periods.	Exported per year.	Humboldt's aggregate.	One-twelfth part deducted.	My estimate of exports to Europe.
1492 to 1500	\$250,000	\$2,000,000	\$166,666	\$1,800,000
1501 to 1545	3,000,000	135,000,000	11,250,000	123,750,000
1546 to 1600	11,000,000	605,000,000	50,400,000	554,600,000
1601 to 1700	16,000,000	1,600,000,000	133,330,000	1,466,670,000
1701 to 1750	22,500,000	1,125,000,000	93,750,000	1,031,250,000
1751 to 1800	35,300,000	1,765,000,000	147,000,000	1,618,000,000
1801 to 1810	43,500,000	435,000,000	36,250,000	398,750,000
Total.....		\$5,667,000,000		\$5,194,820,000
Exported from the western coast of America to Asia, for Humboldt		133,000,000		133,000,000
Remaining in America in coin, plate, &c.....		153,000,000		140,180,000
Total produced up to 1810...		\$5,953,000,000		\$5,468,000,000
Produced up to 1804		5,706,000,000		

In 1696, Gregory King made an estimate of the gold and silver produced by the mines of Europe ; the amount imported and exported from the discovery of America to that time, and the amount in Europe in coin, plate, &c., at different periods. This estimate is contained in a manuscript now in the British Museum, (see Took on Prices, appendix, page 2, to part I.) Mr. King's opinions and estimates on such subjects are entitled to as much, and, perhaps, to more weight, than those of any other man of the age in which he lived.

NO. V.

Estimates of Mr. King in the year 1516, stock of gold and silver in Europe in coin, bullion, plate, gilding, watches, jewelry, and all other forms.....	£45,000,000 or	\$216,000,000
Produced in Europe from 1516 to 1696.....	8,000,000	38,400,000
Imported from Asia in manufactures.....	2,000,000	9,600,000
“ Africa in gold dust.....	15,000,000	72,000,000
“ America in coin.....	520,000,000	2,496,000,000
Produced and imported prior to 1596.....	205,000,000	984,000,000
Consumed and exported to Asia.....	150,000,000	720,000,000
Estimated stock in Europe in 1596.....	100,000,000	480,000,000
Produced and imported from 1596 to 1696.....	340,000,000	1,670,000,000
Exported to Asia from 1596 to 1696.....	119,000,000	571,000,000
Consumed from 1596 to 1696.....	96,000,000	460,800,000
Increase during the 100 years.....	125,000,000	600,000,000
Estimated stock in Europe in 1696.....	225,000,000	1,080,000,000

NO VI.

The stock of gold and silver in Europe in 1696 was estimated by Mr. King as follows, stated in millions of pounds sterling:—

	In England.	France.	Holland.	Other nations of Europe.	Total in Europe.
Silver coin.....	£8,500,000	£18,000,000	£7,000,000	£76,500,000	£110,000,000
Gold coin.....	3,000,000	5,000,000	2,000,000	18,000,000	28,000,000
Bullion.....	1,000,000	1,500,000	1,500,000	4,000,000	8,000,000
Plate of laymen....	4,000,000	9,000,000	1,500,000	31,500,000	46,000,000
“ churches.....	200,000	3,000,000	100,000	16,700,000	20,000,000
Medals and rarities...	200,000	900,000	300,000	3,600,000	5,000,000
Gold and silver thread, wire, &c.....	400,000	1,400,000	100,000	4,100,000	6,000,000
Do. in stock for trade.	200,000	600,000	300,000	900,000	2,000,000
Total.....	17,500,000	39,400,000	12,800,000	155,300,000	225,000,000

Though these are but estimates founded on very imperfect evidence, yet they were made by one of the best-informed and most competent men of the age to judge with accuracy, and constitute the best evidence on the subject that is attainable. Being made by an Englishman, we have reason to believe that the estimates are sufficiently favorable to England; and yet they show England inferior in wealth to both Holland and France. What a picture they exhibit of the amount of the precious metals engrossed by the church in Catholic countries!

NO. VII.

STATEMENT OF THE COINAGE OF SEVERAL COUNTRIES OF AMERICA DURING THE UNDERMENTIONED PERIODS.

	1801 to 1810.	1811 to 1820.	1821 to 1830.	Annual average. 1831 to 1840.
Mexico.....	\$227,240,000	\$112,160,000	\$99,760,000	\$12,000,000
Peru.....	45,700,000	60,250,000	16,730,000	2,250,000
Bolivia.....	35,870,000	20,660,000	15,700,000	700,000
Chili.....	.....	9,700,000	2,000,000	400,000

The foregoing table shows the rapid decline of the produce of the mines of the principal mining countries of America during the period of their revolutionary struggle to throw off the yoke of Spain.

NO. VIII.

STATEMENTS AND ESTIMATES OF THE AMOUNT OF GOLD AND SILVER PRODUCED IN EUROPE AND THE PRINCIPAL MINING COUNTRIES OF AMERICA DURING THE UNDERMENTIONED PERIODS.

	1801 to 1810.	1811 to 1830.	1831 to 1840.
Mexico.....	\$227,200,000	\$211,920,000	\$121,700,000
Peru.....	45,700,000	76,980,000	22,500,000
Bolivia.....	35,800,000	36,360,000	7,000,000
Chili.....	20,000,000	11,700,000	4,000,000
Buenos Ayres.....	448,500,000	j 30,000,000	35,000,000
Guatemala.....	.....	2,890,000	
Brazil, estimated.....	20,000,000	j 20,000,000	
Total of America.....	\$397,200,000	\$389,850,000	\$190,000,000
Total of European and Russian mines & gold dust imported from Africa.	442,800,000	110,150,000	75,000,000
Total.....	\$440,000,000	\$500,000,000	\$265,000,000

The numbers marked *h* are stated on the authority of Baron Humboldt, and those marked *j* on the authority of Mr. Jacob.

NO. IX.

STATEMENT OF THE AMOUNT OF GOLD FROM THE MINES OF THE UNITED STATES (INCLUDING THOSE OF NEW MEXICO AND CALIFORNIA FOR 1849 AND 1850) DEPOSITED FOR COINAGE AT OUR MINTS.

1824 to 1830, both inclusive.....	\$715,000
1831 to 1840, ".....	5,658,025
1841 to 1848, ".....	7,268,033
1849, from California and New Mexico.....	6,190,403
1849, from other mines of the United States.....	898,375
First four months of 1850.....	7,303,600
Total to April 30, 1850.....	\$28,123,441

The quantity of gold bullion included in the above table received from the mines of California in 1848 was \$44,177; from New Mexico, \$682; and from the United States proper, \$854,546. The quantity of silver from the mines of the United States, deposited for coinage in 1848 was only \$6,191; in 1849, it was \$39,112; and for the first four months of 1850 it amounted to \$51,197; which was mostly parted from California gold.

NO. X.

There has been a great increase since 1820 in the production of gold in Asiatic Russia. The amount produced has been as follows, stated in sterling money:—

In 1819 and 1820.....	\$175,333 16	In 1841 to 1845.....	\$11,298,993 0
1821 to 1830.....	4,734,641 15	1846.....	3,527,000 0
1831 to 1840.....	9,180,891 7		

V. The wear and loss of coin has been variously estimated at from one-fourth to one-half of 1 per cent annually. Mr. Jacob estimated it at 10 per cent in thirty-six years. My estimate is one-third of 1 per cent per annum, which is equal to about 3 per cent in ten years; 13 per cent in fifty years; and 25 per cent in one hundred years.*

* The loss from fire is probably nearly one-tenth of 1 per cent annually; from burying and transportation by land and water, about as much more; and from friction, more than one-tenth of 1 per cent annually.

NO. I.

The amount of gold and silver used in the arts for plate, gilding, watches, jewelry, and other utensils and ornaments, the amount exported to Asia, and the amount of coin remaining in Europe at different periods, were estimated by Mr. Jacob as follows:—

	Used in the arts.	Exported to Asia.	Coin in Europe.
In 1492 .....	.....	.....	£34,000,000
1492 to 1600.....	£28,000,000	£14,000,000	130,000,000
1600 to 1700.....	60,000,000	33,200,000	297,000,000
1700 to 1810	352,000,000	352,000,000	380,000,000
1810 to 1830.....	112,200,000	40,000,000	313,000,000

The reader will see that these estimates are very different from those of Gregory King, stated in tables No. V. and VI. of the last section. On comparing the two together, and with the condition and commerce of the several countries of Europe, it appears to me that Mr. King's estimates are the best evidence we have on the subject, and are entitled to our confidence.

Mr. Jacob estimated the amount used in the arts, in Europe and America, annually, from 1810 to 1830, over and above amount of old plate, &c., melted, equal in value to £5,612,611. Humboldt estimated it in 1804 at but 87,182,800 francs, equal to £3,459,000. McCulloch estimated the whole amount annually in 1833 as follows:—

In Great Britain and Ireland.....	£1,842,916
France.....	866,190
Switzerland.....	350,000
All the remainder of Europe	1,204,118
America.....	300,000

Total annual consumption in the arts.....	£4,563,224
One-fifth part derived from the fusion of old plate.....	912,644

New gold and silver annually used in the arts.....	£3,650,580
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It appears to me, also, that the estimates of Mr. Jacob of the amount of coin in Europe at each period are entirely too high; and that the estimates of the quantity of gold and silver used in the arts prior to the year 1700 is too low by about half; during the eighteenth century, too high by nearly half; and too high, also, for the period from the year 1810 to 1830; and that the estimates of Humboldt and McCulloch are too low.

Humboldt estimated the coin in France in 1803 at 1,850,000 livres, or francs, equal to nearly \$347,000,000, for a population which he estimated at 26,363,000; that is seventy francs, or about \$13 each. Europe then contained, according to Hassel, 182,600,000 inhabitants; of which Russia, Sweden, Norway, Denmark, and the Slavonian and Sarmatian nations constituted more than 62,000,000. "Allowing (said he) for Great Britain and for the west and south of Europe 55 livres per individual, (or about \$10½ each,) and for other countries less advanced in civilization 30 livres (or about 5½ each, we shall find the total specie of Europe cannot exceed 8,603,000 livres." Carry out the principles of his calculation, and the result is as follows:—

	Population.	Livres.	Livres.
France.....	26,400,000	at 70 each	1,850,000,000
Russia and other eastern nations.....	62,000,000	30 "	1,860,000,000
Other nations of Europe.....	94,000,000	55 "	5,870,000,000
Total for Europe.....	182,400,000		8,870,000,000
Equal to about.....			\$1,665,000,000

NO. II.

The coin and bullion of several countries of Europe have been variously estimated at different periods, as follows :—

Great Britain by Davenant in	1600	£4,000,000 sterling.
Gregory King.....	1696	8,500,000 "
Anderson.....	1762	16,000,000 "
Dr. Price.....	1777	15,000,000 "
Lord North.....	1778	18 to 19,000,000 "
Adam Smith.....	1786	18,000,000 "
Rose.....	1802	44,000,000 "
Chancellor of the Exchequer ..	1830	38,000,000 "
France by law in	1716	1,200,000,000 livres or \$225,000,000
Neckar	1784	2,200,000,000 " 414,000,000
Arnould.....	1791	2,000,000,000 " 376,000,000
Humboldt.....	1804	1,850,000,000 " 347,000,000
Spain by Musquiz	1782	80,000,000
Austrian empire by Hassel.....	1807	80,000,000 florins or 39,000,000
Russia by Mr. King.....	1804	56,000,000 roubles or 42,000,000

NO. III.

Mr Storch, (in his political economy, published in 1814.) after carefully collecting and commenting on the estimates of different authors of the specie in the different countries of Europe, estimated the amount as follows :—

Great Britain	\$90,000,000
France.....	420,000,000
Spain	80,000,000
Austria, exclusive of about \$13,000,000 copper coin.....	26,000,000
Prussia, in 1805.....	42,000,000
Russia, exclusive of \$18,000,000 copper coin.....	34,000,000
Other countries of Europe.....	528,000,000
Total of Europe.....	\$1,220,000,000

We have now much more accurate statistics and ample materials for estimating the amount of specie exported to Asia during the last two centuries, and the amount in the several countries of Europe and America at different periods, than were possessed by any of the authors named. As the banks of the United States are numerous, the greater part of the specie is kept in their vaults, and the government has kept a record of the exports and imports of specie since the 30th of September, 1820, we have the means of estimating the amount of specie in the United States with greater accuracy than it can be estimated in any other country. And as the amount of circulating money needed in every country depends on the amount and value of its productive industry and commerce, the relative amount of money in circulation in different countries can be determined with a reasonable degree of accuracy.

The following table of estimates is formed partly from official estimates, and the estimates of numerous visitors, and partly by comparing the condition and the amount and value of the productive industry and commerce of all the nations of Europe and America with each other, and calculating the relative amount of circulating money which each probably employs, as indicated by its condition.

NO. IV.

ESTIMATES OF THE POPULATION AND CIRCULATING MONEY, INCLUDING SPECIE, BANK-NOTES, AND PAPER MONEY OF ALL KINDS (OVER AND ABOVE THE DEPRECIATION OF THE PAPER MONEY) IN AMERICA AND EACH COUNTRY OF EUROPE, AND THE AMOUNT TO EACH PERSON AT THE END OF THE YEAR 1800.

	Population.	Circulating money.	Am't to each person.
Great Britain.....	10,400,000	\$156,000,000	\$15
Ireland.....	4,800,000	38,400,000	8
France.....	27,300,000	327,600,000	12
Holland and Belgium.....	5,000,000	65,000,000	13
Spain and Portugal.....	13,500,000	100,000,000	7½
Italy.....	20,000,000	160,000,000	8
German Austria.....	13,000,000	78,000,000	6
German States.....	12,000,000	84,000,000	7
Prussia.....	11,000,000	66,000,000	6
Denmark, Sweden, and Norway.....	4 000,000	20,000,000	5
Russia, Hungary, Turkey, and other eastern nations of Europe.....	62,000,000	233,000,000	3¾
Total of Europe.....	183,000,000	1,328,000,000	..
America and West Indies.....	24,000,000	108,000,000	4½
Total.....	207,000,000	1,436,000,000	7

Mr. Jacob estimated the coin in Europe at the discovery of America at £34,000,000 sterling, and Mr. King estimated the whole amount of gold and silver in Europe in 1516 at £45,000,000 sterling, over two-thirds of which, perhaps, was coin. (See tables V. and VI. of section 4.)

NO. V.

ESTIMATE OF THE PRODUCE OF THE MINES OF EUROPE AND AMERICA, THE AMOUNT USED IN THE ARTS AND EXPORTED TO ASIA, AND THE AMOUNT MADE INTO AND REMAINING IN COIN AND BULLION AT DIFFERENT PERIODS. (SEE ANTE-TABLE IV. OF SECTION 4.)

Amount of coin in Europe in the year 1500	\$156,000,000
Produce of the mines of America during the 16th century.....	680,000,000
Produce of the mines of Europe and imported from Africa.....	40,000,000
Total.....	\$876,000,000
Wear and loss of old coin, one-fourth part	\$39,000,000
Exported to India, China, and other parts of Asia.....	200,000,000
Used in the arts to make into plate, watches, jewelry, gilding images, &c., in churches, and other utensils and ornaments.....	240,000,000
Made into coin, (280,000,000)—wear and loss of new coin 1-10th part	28,000,000
Amount to be deducted.....	\$507,000,000
Specie and bullion in use in Europe and America, Dec. 31st, 1600..	\$369,000,000
Produce of the American mines during the 19th century.....	1,466,000,000
Produce of the mines of Europe, and gold dust imported from Africa	70,000,000
Total.....	\$1,905,000,000
Wear and loss of the old coin, one-fourth part.....	\$92,000,000
Exported to Asia over £1,000,000 per annum.....	500,000,000
Used in the arts.....	600,000,000
Made into coin, (\$436,000,000)—wear & loss of new coin, 1-10th part	43,000,000
Amount to be deducted.....	\$1,235,000,000
Specie in use, December 31, 1700.....	\$670,000,000
Produce of the mines of America during the 18th century.....	2,650,000,000
Produce of the mines of Europe, and gold dust from Africa, according to Jacob, less one-eighth part.....	366,000,000
Total.....	\$3,686,000,000

Wear and loss of old coin, one-fourth part.....	\$167,000,000
Exported to Asia, £2,000,000 per year.....	960,000,000
Used in the arts, over £2,500,000 per year.....	1,260,000,000
Made into coin, (\$796,000,000)—wear & loss of new coin, 1-10th part	80,000,000
Amount to be deducted.....	\$2,467,000,000
Specie in use, December 31, 1800.....	\$1,219,000,000
Produce of the mines of America to December, 1810, about.....	398,000,000
Produce of the mines of Europe, Siberia, and gold dust from Africa, per Humboldt and Jacob.....	42,000,000
Total.....	\$1,659,000,000
Wear and loss of old coin at 3 per cent.....	36,000,000
Exported to Asia, £2,500,000 per annum.....	120,000,000
Used in the arts, £3,500,000 per annum.....	168,000,000
Made into coin and bullion, \$152,000,000.....	.....
Amount to be deducted.....	\$324,000,000
Specie in use, December 31, 1810.....	\$1,335,000,000
Produce of mines of America to December, 1830.....	390,000,000
Produce of Europe, Russia, &c.....	110,000,000
Total.....	\$1,835,000,000
Wear and loss of old coin, 5½ per cent.....	\$73,000,000
Used in the arts, £4,000,000 per year.....	384,000,000
Exported to Asia, £2,000,000 per year.....	192,000,000
Amount to be deducted.....	\$649,000,000
Specie in use, December 31, 1830.....	\$1,186,000,000
Produce of mines of America to December, 1840.....	190,000,000
Produce of mines of Europe, Russia, &c.....	75,000,000
Total.....	\$1,451,000,000
Wear and loss of coin, 3 per cent.....	\$35,000,000
Used in the arts, £4,500,000 per year.....	216,000,000
None exported to Asia.....	.....
Amount to be deducted.....	\$251,000,000
Specie in use, December 31, 1840.....	\$1,200,000,000

All the accounts and estimates seem to agree that most of the American mines were growing less and less productive, and the total supply of the precious metals much less annually from 1820 to 1840 than it was half a century since, while the population of Europe and America, and the wants of the commercial world, as well as the world of fashion, are rapidly increasing.

Since 1840 there has been a great increase in the production of the gold mines of Russia; which, together with the amount of gold procured during the years 1848 and 1849 from the mines and sands of California, and the prospect of an immense increase from the latter source, renders it probable that the production of the precious metals may, for some years to come, equal, and perhaps exceed, the consumption and the increase of population in the civilized world.

It should be remarked that prior to the nineteenth century, and, to some extent, also, as late as 1816, large quantities of cotton and silk goods were imported from India into Europe and America, and large sums of coin ex-

ported to India in payment, as well as to China and the East India islands, to pay for tea, spices, &c. M. Humboldt estimated that at the commencement of the present century, more than half of all the produce of the American mines, over twenty-five millions of dollars annually of gold and silver were exported to Asia. Since the machinery of Great Britain, and the prodigious increase of the manufactures of that country, have driven the cotton goods of India not only out of the markets of Europe and America, but to a considerable extent out of their own markets, and pretty much ruined and broken them down; and the British have also battered down the barrier which excluded the products of Europe and America (except specie) from the markets of China, the drain of the precious metals to China, India, and all Asia, has ceased, or nearly so. It appears from the reports of the Secretary of the Treasury of the United States, that the balance of gold and silver exported to China and other parts of Asia, over and above the amount imported from them, have been as follows:—During the year ending Sept. 30, 1835, it amounted to \$1,995,140; in 1842, it amounted to \$837,094; in 1844, to \$574,000; and in 1845 to only \$239,874. The exports of the manufactures of Great Britain to China, as well as India and Turkey, have been so great since 1830, that very little specie has been exported from Europe to Asia, and for ever hereafter we may expect the balance to be the other way, and that specie will be exported from China and other parts of Asia to Europe.

Let us compare the population of Europe and America at several different periods with the estimated amount of coin at these periods, in order to see how their increase compares with each other; this will enable us to judge of the probable effect of the increase or decrease of coin upon the prices of commodities in the commercial world.

NO. VI.

ESTIMATES OF THE POPULATION OF EUROPE AND AMERICA (EXCLUSIVE OF WANDERING INDIANS) AT DIFFERENT PERIODS; ALSO THE AMOUNT OF COIN AND BULLION IN USE, AND THE AMOUNT TO EACH PERSON.

Years.	Population of		Total	Total specie.	Am't to each
	Europe.	America.	population.		person.
1500.....	104 millions.	.....	104 millions.	\$156 millions.	\$1 50
1600.....	117 "	6 millions.	123 "	369 "	3 00
1700.....	138 "	12 "	150 "	670 "	ne'rly 4 50
1800.....	185 "	24 "	207 "	1,219 "	ne'rly 6 00
1810.....	195 "	28 "	223 "	1,335 "	6 00
1830.....	221 "	39 "	260 "	1,186 "	4 56
1840.....	235 "	45 "	280 "	1,200 "	4 25

The Bank of Venice was the first banking establishment in Europe. It was founded in 1171, and subsisted till the subversion of the republic in 1797. It was a deposit bank only, and issued no notes.

The Bank of Amsterdam was established in the year 1609, and that of Hamburg in 1619; they were deposit banks, only, and issued no notes.

The Bank of England was incorporated in the year 1694, and was the first bank which ever issued notes, or bills to circulate as money, in the ordinary transactions of trade and commerce. The Bank of Scotland was established in 1695, with a capital of but £100,000, which was raised to £200,000 sterling in the year 1744, and in 1804 to £1,500,000. The original capital of the Bank of England was but £1,200,000 sterling, consisting of a loan of that amount to the government. These two were the only banks (if we except some private companies and bankers in London)

that ever issued notes for a circulating medium, or money, and as a substitute for coin, prior to the eighteenth century, and the credit of the notes of the Bank of England was at first so poor, that the bank became involved in difficulties in 1696, and was compelled to suspend payment of its notes in coin, and the notes fell in value, and passed at a heavy discount. The amount in circulation February 28th, 1700, was but \$938,240, and in August of the same year only £781,430.

It is fair to assume that the circulating medium of the commercial world was scarcely increased at all by bank notes, or paper money in any shape, in the year 1700, at the commencement of the eighteenth century, and that the whole amount of coin and bullion then in use in Europe and America was less than \$700,000,000.

The eighteenth and the nineteenth centuries have been *fruitful in all sorts of schemes and projects of a financial character, to make credit, and too often the credit of bankrupts, spendthrifts, knaves, and visionary speculators, a substitute for coin.* One of the first, greatest, and most ruinous, was the great Mississippi scheme, got up at Paris, by John Law, the forepart of the eighteenth century. After this great bubble burst, France confined herself to a specie currency until the issue of the government assignats, during the French revolution, and no bank for issuing notes was established in France until the bank of France, in 1803, to which was granted the exclusive privilege of issuing notes for a period of forty years. Mr. Jacob estimated the circulation of the Bank of France in 1810 at but two millions sterling, and in 1830 at nine million pounds sterling. This bank was slow in acquiring the public confidence, so as to get much circulation for its own notes.

The Netherlands had no money but coin until the establishment of the Bank of the Netherlands in the year 1814, with a capital of 5,000,000 florins, and the exclusive privilege of issuing notes for twenty-five years. Mr. Jacob says its circulating notes then, (1830,) were not supposed to exceed one million sterling.

Banks have also been established at St. Petersburg, Vienna, Berlin, and Copenhagen, besides numerous other banks in the British dominions, and in the United States of America.

Mr. Jacob remarks that Russia was then (1830) the only country of Europe which had not returned to specie payments. When bank notes were first issued, and the quantity small, the rouble was worth about three shillings and four pence sterling, or seventy-five cents, and was of the same value as the Russian silver coin of that name. The increased quantity gradually depreciated the metallic value of the paper, till one silver rouble was worth four of paper. It had nearly attained this low value in 1810, when the paper roubles amounted to 577,000,000. It was nearly the same, but of somewhat greater value in 1830, though the amount had increased to 639,000,000 roubles. He estimates their exchangeable value, in 1810, as equal to 23,000,000 pounds sterling, and in 1830 to £25,250,000.

Art. III.—COFFEE: AND THE COFFEE TRADE.

COFFEE has become the source of a very large trade between the Brazil and the United States, and being now an article more of necessity than luxury, as it formerly was, it may be more particularly interesting at the present moment, when the questions of production and consumption are all important, to investigate its growth and probable increase in that part of the world which now yields three-eighths of the whole production.

Coffee was first introduced into Rio de Janeiro in 1774, by a Franciscan Friar, named Velloso, who cultivated a single tree in the garden of the Convent of St. Antonio. Brazil was then governed by the Marquis de Lavradio, as Vice-Roy. The first fruits of the tree were presented to the Marquis, who distributed them amongst the most respectable planters, explaining to them the advantages of adding another valuable article of produce to the country; but strong in their prejudices in favor of sugar and indigo, few took any pains to cultivate it, and the progress of increase was so slow and gradual that, in 1808, when Dom Joas VI. fled from Portugal to Rio de Janeiro, and soon after opened the port for foreign trade, the annual crop of coffee did not exceed 30,000 bags, of 160 pounds each, or 8,000,000 pounds. The increase, until 1820, was very moderate, the crop then being about 100,000 bags. The high prices of coffee in Europe from 1817 to 1821, St. Domingo having, in 1818, reached 148 shillings per cwt. in bond in London, caused by the falling off in production, and increase of consumption all over the world, stimulated the planters of Brazil to extend their cultivation of coffee, especially as the prices of sugar had declined, and indigo, from its inferior quality, become quite neglected; also that much less capital was required than for sugar.

The importation, at that time, of slaves was great, and prices very low: they were sold on long credits to the planters, payment being received in produce, which enabled those of small means to buy estates. The produce being abundant, and prices high, they were soon able to pay off their debts, and established the custom of credit to the coffee planter, which, at the same time, was denied to the sugar planter to the same extent, as the cultivation of sugar had become unprofitable when brought into competition with Cuba, Porto Rico, and the other sugar-producing countries. It is somewhat singular, that while in Brazil sugar-cultivation was declining, and coffee increasing and superseding it, that in Cuba coffee was falling off, and sugar annually increasing. In Brazil the coffee planter had credit, but the sugar planter none. In Cuba it was the reverse.

In 1830 the crop had increased to 400,000 bags, or 64,000,000 pounds. The slave-trade, by convention with Great Britain, was to cease in February, 1830. This caused an enormous import of slaves, that could only be disposed of at very low prices, and long credits. This again stimulated the planting of new estates, and the crop rapidly increased, so that in 1840 it was 1,060,898 bags, or 168 $\frac{2}{3}$ million pounds. The cultivation being found profitable, the demand for slaves continued, and notwithstanding the attempts of the English government to put a stop to it, the slave-trade has been continually carried on clandestinely; from 30 to 50,000 being annually imported.

The increase of export since 1840 was very rapid; and the crop of 1847 proving a most abundant one, with fine weather for picking and bringing it

to market, proved to be 1,804,558 bags, or $288\frac{2}{5}$ million pounds, which, from present appearances, will be the maximum for many years, as it is very rare that so great a combination of favorable circumstances occur as in 1847 and 1848, to ripen, secure, and bring to market a very large crop. The dry weather, from April, 1848, to December, 1849, was of serious injury to the crop of 1848 and 1849, especially the latter; as it is beyond a doubt that the quantity produced in 1849 was but about one-third, say 600,000 bags, although the export of the crop-year, July to July, will show about 1,100,000 bags, it having been increased by stocks of the previous crops, that had been held over by wealthy planters, and those so far distant that the low prices of 1847 and 1848 would not pay for sending to market.

The low prices of coffee from 1845 to 1849 have discouraged planting new estates, and renewing old ones, necessary to keep up the production. The danger of importing slaves having increased, the number has but been barely sufficient to supply the annual loss upon the estates, generally estimated at 10 per cent, but frequently more. Therefore, should the trade be stopped altogether, as it is most probable it will be very shortly, there cannot be any increase of production of coffee, but, on the contrary, a decrease; as without hands to supply the annual loss, the crop cannot be all picked, and no substitute can be applied.

The coffee-growing districts are usually divided into the Serra Abaixo, (or below the mountains,) and Serra Acima, (above the mountains;) the produce of the former is about one-sixth part of the whole crop, in good years, but is much more uncertain than the Serra Acima, being more liable to injury from droughts, which, of late years, have become very frequent. The quality is also very inferior, and seldom shipped to the United States. The trees usually flower three times each year, generally in August, September, and October, and are ready for picking, in favorable seasons, in March, April, and May, varying according to situation, which is much greater than could be supposed. In April, small parcels of new coffee appear in market, but generally very ordinary; in May and June the quantity is greater; but it is never abundant until July and August.

The Serra Acima crop is always two to three months later in blossoming, but is more uniform, enabling the planters, in some places, to secure the crop by one picking, thereby saving much labor. In July, new coffee from Serra Acima begins to appear in market, but not until August and September, can entire cargoes be obtained. In usual times, there is a good deal of old coffee remaining over from the previous crops, which the planter first sends to market before cleaning out the new. It is, therefore, not until October and November that the bulk of the coffee in market is of the new crop. The crop of 1849 having been entirely exhausted before the new was ripe, it will be better defined this year than for many years past.

The prospect of the Serra Abaixo coffee is unfavorable, as the two first blossoms were nearly destroyed by the drought, and it is not now estimated at over three-fourths of a fair average. The Serra Acima crop, when in blossom, promised most abundantly, but it received injury also from dry weather, and the result will not prove over a good average. The whole crop is, therefore, estimated by good judges at 1,600,000 bags, should the picking season prove propitious. The Brazilian estates are very badly, generally, provided with drieries, having no limestone in the country; and as seven-eighths of the coffee is dried in the pulp, a great deal is lost in rainy weather, as it is frequently exposed for weeks before it is fit to store. The

roads in Brazil are only for mules, and planters generally send their crops to market with their own troops, which, upon some large estates, are employed the whole year in bringing it down; it is, therefore, quite impossible to get it to market any faster than usual, notwithstanding the present high prices; especially from the commencement of the picking season until the crop is secured, (from three to four months,) as during this time they have also to prepare and plant their lands for supplies of provisions, say corn, beans, mandioca, &c.

Prices of all staples are regulated by supply and demand, without regard to cost of production; but at the present time, when the production of coffee is not equal to the consumption, and that while the former is rather decreasing, the latter is increasing, it might be well to inquire into the cost of producing coffee in Brazil, where, from the low price of slaves, the great produce of the trees, and general security of the seasons, it has been lower than in any other country.

The great drawback has been the expense of bringing to market, and there is no prospect of its being decreased. It averages to the planter about two cents per pound. The price of slaves henceforward will be much greater than it has been; and the seasons, the past four or five years, have been greatly changed, so that instead of 3||200 reals per arroba, as a fair average remunerating price, it should now be estimated at 4||000 reals, or about 6½ cents per pound. From this must be deducted 2 cents per pound for transportation and expenses, leaving the planter only 4½ cents to pay the cost of production; making it barely a living business, when it is considered that they usually pay 15 to 18 per cent interest. It is, therefore, not likely that any increase of production will take place, unless prices for some time should rule from 4|| to 5||000 reals, and this for three or four years, which time is required to bring new trees into bearing.

From the best information to be obtained, 4||000 reals will not pay the grower as well as \$5 per barrel for flour in the seaports would pay the farmer in the United States for his wheat; therefore, with a short production of coffee, it would not be unreasonable for the planter to expect 5||000 reals, or upwards, so as to make up for the losses from 1845 to 1849, the average during that time not being over 2||800 reals.

It should also be considered that the cost of producing coffee in other places is fully 33½ more than in Brazil, and that in consequence the production in almost every other place has decreased; Cuba and St. Domingo at the present time not exporting more than one-half what they formerly did. The same remarks apply to all the West India Islands, except Porto Rico. Laguaira and Ceylon are the only places where there is any increase, and this is very trifling, compared with the falling off in Java, which being from neglect of trees and planting, cannot be increased for many years, unless government is disposed to force it, as before.

To exemplify the foregoing remarks, the following tables of export of crop from 1832 to date, are annexed, showing the sub-division to Europe and United States, by which it will appear that the increase to United States has been very great; and it is now quite probable that five-eighths of the whole crop will be required for there.

The first export to the United States was in 1809, 1,522 bags, to Salem, per ship *Marquis de Someruelas*. The export from July 1st to July 1st constitutes the crop-year. That of 1849 is estimated, ten months only having expired:—

EXPORTS OF COFFEE FROM RIO DE JANEIRO FROM JULY 1 TO JULY, SHOWING THE CROPS AS NEARLY AS CAN BE ASCERTAINED.

Years.	Europe.		United States.		Total.		
	Bags.	Mill. lbs.	Bags.	Mill. lbs.	Bags.	Mill. lbs.	
1833	477,756	76.4	174,063	27.9	651,719	114.3	25 p. ct. to Europe U. S.
1834	305,324	48.7	225,132	35.7	531,456	84.4	
1835	443,536	70.7	298,854	47.7	742,390	118.4	
1836	410,890	65.7	254,913	40.8	665,803	106.5	
1837	534,943	85.5	156,711	25.2	691,654	110.7	
1838	436,369	69.7	276,649	44.2	712,918	113.9	41 p. ct. to Eu. U. S.
1839	716,654	113.5	344,244	55.1	1,060,898	168.6	
1840	557,593	89.3	372,295	60.4	929,888	149.7	
1841	674,253	107.7	370,175	59.2	1,044,428	166.9	
1842	778,800	124.5	371,421	59.2	1,140,221	183.7	
1843	576,030	92.1	648,121	103.7	1,254,151	195.8	52 p. ct. to Eu. 47 p. ct. to U. S.
1844	686,621	109.7	491,523	78.5	1,178,144	188.2	
1845	611,511	97.7	679,802	107.8	1,291,313	205.5	
1846	843,135	135.0	684,632	109.4	1,528,117	244.4	
1847	1,048,785	167.5	755,773	120.7	1,804,558	288.2	
1848	848,108	135.4	773,017	123.5	1,621,125	258.9	52 p. ct. to Eu. 47 p. ct. to U. S.
1849	est. 500,000	80.0	600,000	96.0	1,100,000	176.0	

From the best sources of information, the production of coffee throughout the world in 1849 is estimated as follows, by which it appears that the production is not near equal to the consumption, in consequence of which the prices have advanced considerably, and will no doubt check the annual increase of consumption, and probably decrease it still more.

The annual increase in the United States has been astonishing; upwards of 15 per cent per annum since 1838, while Europe has increased but $2\frac{1}{2}$. The average annual increase is about 5 per cent in all consuming countries, or about 30,000,000 pounds per annum.

The production of coffee in 1849, which furnishes the consumption for 1850, is estimated as follows:—

Brazil, 1,100,000 bags, or.....	176 million pounds.
Java, 600,000 piculs, or	80 "
Cuba and Porto Rico	30 "
St. Domingo.....	35 "
Laguaira and Porto Cabello.....	35 "
British West Indies.....	8 "
Ceylon and British India	40 "
Mocha, &c.....	3 "
French and Dutch West Indies.....	2 "
Manilla.....	3 "
Sumatra.....	5 "
Costa Rica.....	9 "
Total.....	426 "

The consumption of the world in 1848 was estimated, by the average of various authorities, as follows:—

Holland and Netherlands.....	108 million pounds.
Germany and North Europe	175 "
France and South Europe	105 "
Great Britain	37 "
United States and British America	175 "
Total.....	600 "
Add 5 per cent for annual increase...	30 "
Consumption of the world, 1849.	630 "

That there was an increase of consumption in 1849 is proved by the elaborate annual statements published in that most valuable journal, the "Economist," January 26th, 1850, by which it appears that there was taken for consumption, in the principal consuming countries of Europe, 300,000 cwt., or 33,000 million pounds more in 1849 than in 1848, or 11 per cent. In the United States there was certainly no falling off in 1849; therefore, we are warranted in estimating the consumption of 1849 at 630,000,000 pounds.

Consumption of the world in 1849.....	630 million pounds.
Production as above for 1849	426 million pounds.
Stocks in Europe, December 31, 1849, as per <i>Economist</i>	113 "
Supposed stock in U. States same time.	21 "
Total supply	560 "
Deficiency	70 "

From the foregoing, there is no doubt of the fact, that the increase of consumption of coffee throughout the world has surpassed the production, and that an equalization can only take place by an increase of price so considerable as to check the annual increase of consumption of 5 per cent, and reduce it nearly 25 per cent; or by an increase of production. Some increase may be expected from Brazil of about 400,000 bags, or 64,000,000 pounds for 1851; but from other quarters there is not much probability of increase, until stimulated by high prices to increase the cultivation; and this, as previously shown, cannot be expected, to any great extent, in Brazil, for want of slave labor, and the impossibility, at present, of introducing free labor. There is more probability of an increase from Java, but as many of the estates have been ruined by neglect, and four years are required to bring new ones into being, it is not probable that the production will for many years equal the consumption, even at moderate rates; as it must be borne in mind that the use of coffee having become so general throughout the world, and which being in a state of peace, the increase of consumers is very great, especially in the United States, where, as it is not taxed, high cost will not affect the consumption so much as in Europe, and, therefore, a large annual increase of production is actually required to supply the wants of the world. Where, and when this is to take place, remains to be seen.

Query. As civilization alone can ever put a stop to the slave trade on the coast of Africa, and as coffee produces most abundantly upon every part of the coast, is it not worth the while of all philanthropists to turn their attention to colonization, and thereby secure two great objects:—the stoppage of the trade, and an abundant supply of an article now become a necessary of life, besides many others, and a refuge for the emancipated slaves of the United States?

J. G.

RIO DE JANEIRO, *May 8th*, 1850.

Art. IV.—COMMERCE OF HAMBURG IN 1849 AND PREVIOUS YEARS.

WE are indebted to the polite attention of Mr. Ferdinand Kreck, of 57 Broad-street, New York, the Consul of the city of Hamburg at New York, for a copy of the "*Tabellarische Uebersichten des Hamburgischen Handels, während der vier jahre 1845–1848:*" or, *Tables of the Trade of Hamburg*, during the years 1845–1848, published in that city in April, 1850; and also for some valuable statistics of the trade and navigation of Hamburg in 1849.

The Tables are prepared and published by the authority of the government. Their value depends, of course, upon the mode in which, and the sources from which, they are prepared. These are briefly explained in the general introduction, prefixed to the tables, from which we shall offer no apology to our readers for translating somewhat at length, as well as quoting the more interesting tables. These, together with the information in our possession, respecting the trade of Hamburg in 1849, will enable us to bring down our notice to the latest dates. We hope hereafter to be able to present a connected and regular account of the commerce of that city and of the other German ports. In doing so, we shall be much assisted by a periodical and official publication such as the "*Tables.*" The relation of this country to these German ports, and through them to all Germany, is something more than commercial. And even in a commercial point of view the immense passenger-transportation going on between them and our ports is a matter of much interest. One of the tables we quote exhibits the progress of this branch of business.

Above all, in the new era in trade, and especially in the carrying-trade, which the repeal of the former navigation-laws of England has opened, these statistics of German commerce are of high interest to American readers. At one period the carrying of the world was almost all in our hands. But our possession of it during the European war was temporary and fortuitous. To what degree openings will be afforded by the new English law is yet uncertain; but it is certain that one of our greatest competitors in the carrying-trade will be the German ports. In such honorable competition it is an important point to know what your rival has done, and can do.

The introduction begins with an account of the origin of the work. The Committee of Commerce of Hamburg petitioned the Senate in May, 1844, to establish a Bureau of Commercial Statistics. Tables of imports of the more important articles of trade had been prepared, voluntarily, at the Custom-house, since June, 1835, but the preparation of them had been gradually more and more neglected, on account of the press of other business. Particular circumstances, as well as the consideration of the relative position of Hamburg to the rest of Germany, manifested the necessity for full official statistics, exhibiting the extent and direction of the trade of Hamburg.

On the recommendation of the Senate, the Common Council, on the 26th June, 1844, and 25th November, 1847, appointed the necessary persons to prepare regular annual tables of the trade and navigation of Hamburg, from the materials obtained at the Custom-house.

Fair copies of these tables were immediately deposited in the Commercial Library, for public inspection.

The next step, of course, was publication, and in the present work we have the results of the labors of the Hamburg officials, exhibiting the com-

merce of Hamburg during the years 1845–1848, “from the general mercantile statistical point of view,” to use the language of our authority, “as well as with reference to the importance of the place to the commercial and industrial interests of the rest of Germany.”

The introduction then gives us explanations on several points of interest.

1. *The Custom-house Regulations of Hamburg.* A knowledge of these will enable one to judge of the reliableness and extent of the materials of of these tables. The Customs regulations at Hamburg require the declaration on entry to contain a correct statement of the packages, bales, bags, &c., their contents by measure, weight, or the piece, and the value of the goods at the market-price of Hamburg; or, in case of goods not named in the Price Current, at the proved price, there, on the day of paying duties. All declarations are to be signed by the party paying duties, or their special attorneys, and to be sworn.

The import duty at Hamburg is $\frac{1}{2}$ per cent, and the export duty $\frac{1}{4}$ per cent, on the value. The following articles are free from import or export duty: *Linen, rags, linen and cotton, thread, wool, rapeseed, copper, brass, zinc, specie, printing types, oil cakes, bark, bones, coals, etc.* Boards and staves pay no import duty.

Goods entered for export, and exported within three months, without changing hands, are free from the usual duties.

As a check, as well as evidence of the origin or destination of imports and exports, all bills of lading, manifests, freight-lists, etc., are required to be delivered at the Custom-house.

“From the nature of the tariff regulations at this place,” says our authority, “it is evident that our means of arriving at the value of our trade must be more reliable, on the whole, than the commercial statistics of other States, where the total value of imports and exports is reckoned at *fixed average prices*, or where, in part, a high *ad valorem* duty is imposed, or where the declaration of value is only a formality. As at our port the trade is entirely free, and mercantile relations are very wide-spread and multifarious, and the declarations are made through the year according to the market-price at the time, the commercial statistics of Hamburg will be found to exhibit, for every article, the price which to a degree may be considered the average price, for the particular year, in the markets of the world.”

The capacity of vessels is given according to the measurement of the ships used at Hamburg, in “*commerzlasten*,” equal to about three tons.

2. There are no statistics exhibiting the extent of the commerce of Hamburg in years previous to 1845–1848 with any fullness. Only in one or two particulars can comparisons be made with any precision.

The burden of vessels arriving has been ascertained with exactness only since 1830, but the number has been set down since 1815. The duties on tonnage, however, exhibit the average capacity of the ships that arrived at Hamburg from 1815 to 1829, inclusive. The results are as follows:—

VESSELS ARRIVED.

1815–1819, average number.....	2,043	capacity, 73,000 lasts.
1820–1824 “	2,050	“ 76,500 “
1825–1829 “	2,408	“ 89,000 “
1830–1834 “	2,628	“ 104,851 “
1835–1839 “	2,653	“ 119,123 “
1840–1844 “	3,252	“ 165,575 “
1845	3,990	“ 194,808 “

1846.....	3,779	capacity, 186,020½ lts.
1847.....	4,178	" 210,630 "
1848.....	3,304	" 197,878 "

The increased capacity in particular ships, as well as the extraordinary increase in commercial intercourse at this port in general, cannot escape remark.

No calculations can be made of the total amount of imports and exports at Hamburg before 1845, approaching in accuracy the results of the tables. The value of dutiable goods might serve as a measure of comparison in estimating imports, but the value of most colonial goods has materially fallen, the number of free goods is different, and the proportion of transit to other trade varies considerably in different years. In the four years 1845-1848, there is a remarkable correspondence in the proportion of dutiable to free goods.

The value of goods paying duty at Hamburg was—

Years.	Marks banco.*	
1820-1824, average.....	66,266,062	
1825-1829 ".....	71,107,417	
1830-1834 ".....	80,524,077	
1835-1839 ".....	91,461,162	
1840-1844 ".....	99,408,822	
1845.....	111,226,770	or 38.11 per cent of all imports.
1846.....	106,897,300	37.95 " "
1847.....	114,129,520	37.83 " "
1848.....	84,688,790	34.55 " "

As already remarked, statements of the exports of the leading articles of trade have been prepared since 1835, which correspond with the tables now published. The following table, exhibiting the amount of the importation of twenty articles, from 1835 to 1848, is made up from them; and of some of these articles the average yearly value is also given:—

IMPORTS INTO HAMBURG.

Years.	Raw sugar. Centner.†	Coffee. Centner.	Tea. Centner.	Rice. Centner.	Tobacco. Centner.
1835.....	660,180	384,400	5,755	80,008	118,085
1836.....	675,984	431,223	15,034	68,853	119,982
1837.....	689,155	501,792	13,437	65,650	117,309
1838.....	787,428	489,001	13,013	86,647	97,539
1839.....	687,919	415,014	8,268	97,746	99,876
1840.....	773,563	556,602	9,339	87,918	148,806
1841.....	606,716	657,661	9,388	94,598	139,962
1842.....	733,588	670,966	11,131	120,072	149,881
1843.....	748,913	636,036	12,487	97,370	149,054
1844.....	497,124	585,498	15,476	124,082	176,372
1845.....	651,317	638,165	9,117	96,971	182,214
1846.....	624,107	632,944	15,798	106,726	146,008
1847.....	596,361	745,985	16,694	228,208	150,992
1848.....	534,781	754,785	8,798	139,226	118,022

Years.	Cotton. Centner.	Indigo. Centner.	Dye-woods. Centner.	Skins. Centner.	Whale oil. Stk.
1835.....	116,319	13,573	103,071	39,710	199,056
1836.....	164,927	17,388	66,953	25,628	127,104
1837.....	149,288	12,922	61,076	36,848	128,256
1838.....	117,576	15,824	55,389	47,261	141,888
1839.....	110,729	15,849	95,680	49,430	96,560
1840.....	216,376	17,364	142,815	61,071	232,051
1841.....	176,598	19,292	161,387	84,128	222,228

* The mark banco, German currency, is equal to 35.6 cents of our currency.

† The centner is equal to a quintal, or 120 pounds, German.

Years.	Cotton. Centner.	Indigo. Centner.	Dye-woods. Centner.	Skins. Stk.	Whale oil. Stk.
1842.....	169,945	21,341	93,839	58,254	124,566
1843.....	234,400	14,587	84,832	74,753	134,535
1844.....	212,512	16,482	116,569	80,171	121,493
1845.....	216,551	18,069	148,649	126,236	298,310
1846.....	203,010	15,748	143,863	105,268	164,453
1847.....	226,746	13,795	122,373	114,568	202,215
1848.....	166,445	11,598	139,550	79,531	170,611

Years.	Wine. Hhds.	Raisins. Centner.	Herrings. T.	Iron. Centner.	Coal. Loads.
1835.....	48,570	56,068	26,137	131,851	22,517
1836.....	36,990	44,510	27,397	85,809	20,034
1837.....	37,950	47,082	35,690	108,202	23,737
1838.....	48,940	70,000	24,327	140,881	30,288
1839.....	40,200	72,431	23,047	156,337	38,814
1840.....	50,170	41,557	25,493	208,378	45,308
1841.....	62,690	79,084	21,823	293,580	68,343
1842.....	43,470	79,320	31,009	399,185	53,006
1843.....	47,253	56,484	32,450	381,691	54,600
1844.....	50,848	48,792	24,026	341,323	69,895
1845.....	56,212	91,942	25,757	382,261	86,139
1846.....	49,632	38,151	21,011	353,129	95,195
1847.....	58,550	41,524	26,018	531,917	117,950
1848.....	57,172	52,168	50,269	261,887	132,723

Years.	Twist. Centner.	Wool. Centner.	Grain. Loads.	Clover. Centner.	Zinc. Centner.
1835.....	260,068	203,433	18,873	48,402	79,355
1836.....	297,978	254,784	33,443	50,874	110,650
1837.....	332,673	148,423	34,357	35,066	143,466
1838.....	345,408	219,226	44,653	68,268	90,862
1839.....	364,290	195,770	57,042	94,758	173,604
1840.....	384,280	186,598	53,888	109,110	131,920
1841.....	389,852	172,396	73,988	94,866	62,864
1842.....	433,650	128,862	39,146	60,976	75,876
1843.....	367,691	146,682	30,267	39,088	154,846
1844.....	296,142	193,919	39,531	58,534	225,718
1845.....	414,723	175,700	42,750	109,725	178,666
1846.....	424,699	160,850	36,527	140,126	154,293
1847.....	341,893	128,928	42,063	185,769	266,744
1848.....	312,358	131,350	69,575	41,326	172,803

Years.	Raw sugar. Marks banco per 100 lbs.	Brazil coffee. Marks banco per 100 lbs.	Tea. Marks banco per 100 lbs.	E. I. rice. Marks banco per 100 lbs.	Hav. tobacco. Marks banco per 100 lbs.	Cotton. M'rks banco per 100 lbs.
1835.....	21. 7	5 7-16	29½	10.	17 15-16	9½
1836.....	22. 1	5 3-16	17½	9. 14	15 13-16	9 7-16
1837.....	17. 5	4½	15½	9.	14½	6 5-16
1838.....	18. 7	4½	22½	11. 9	14	6 5-16
1839.....	17. 13	4½	22½	12. 13	10½	7 9-16
1840.....	16. 3	4½	26½	8. 12	12½	5 11-16
1841.....	14. 8	4 1-16	28½	8. 14	10½	5 11-16
1842.....	13. 1	3 5-16	24 9-16	8. 8	9½	4½
1843.....	14. 6	2½	17 13-16	7. 6	12 9-16	4½
1844.....	14. 4	3 3-16	16½	7. 5	9 3-16	4½
1845.....	17. 2	3 5-16	20½	11. 1	9½	4 1-16
1846.....	15. 11	3 7-16	16 15-16	10. 4	9½	5 11-16
1847.....	16. 12	3 7-16	15 9-16	12. 3	9 3-16	5 15-16
1848.....	12. 15	2½	14 7-16	7.	6½	4

Years.	Indigo.	C'mp'chy w'd. A. skins.	Whale oil.	Herring.	Raisins.	
1835.....	3. 10	4. 3	5 5-16	42.	16. 4	11. 8
1836.....	4. 9	4. 5	6	53.	19. 1	13. 3
1837.....	3. 15	5. 1	6½	38. 5	18. 8	13. 2
1838.....	4. 6	5. 10	6	39. 7	17. 8	13.
1839.....	4. 5	6. 10	6½	37. 10	18. 7	11. 13

Years.	Indigo.	C'mp'chy w'd.	A. skins.	Whale oil.	Herrings.	Raisins.
1840.....	4. 2	5.12	6½	37. 6	16. 9	13. 2
1841.....	3. 9	4. 8	5½	36.11	17.12	10.11
1842.....	3.	3.14	5 5-16	29. 1	16.11	9. 3
1843.....	3. 8	4. 3	4 15-16	37. 7	14.12	12. 1
1844.....	3.	4. 1	5 5-16	40. 8	14. 5	14.13
1845.....	3. 3	3.14	5½	37. 3	13.12	14. 2
1846.....	3. 4	3.10	4 15-16	36.13	13.13	10.10
1847.....	3. 2	4. 1	4 9-16	36. 4	14.14	12.14
1848.....	3.	3. 9	3 11-16	36.	14.15	11. 7

Leaving the year 1848 out of the comparison, on account of the extraordinary political events which disturbed it, we have a remarkable uniformity in the business of the last four years:—

	1845.	1846.	1847.	1848.
Total imports...marks banco	291,881,410	281,665,730	301,740,770	245,141,950
Total exports.....	276,424,500	276,392,060	296,376,650	215,579,970

Comparing later years with 1845, the per centage is—

	1845.	1846.	1847.	1848.		1845.	1846.	1847.	1848.
Imports....	100	96.5	103.4	84	| Exports.....	100	100	107.2	78

The proportion of the direct transatlantic imports, as well as exports, to the other trade has also remained uniform. The following are the proportions:

	1845.	1846.	1847.	1848.		1845.	1846.	1847.	1848.
Imports....	22.4	20.8	21.2	22.1	| Exports.....	31.5	28.4	27.6	27.5

The imports by land—that is from the interior of Germany—were—

	1845.	1846.	1847.	1848.
Total imports ....marks banco	108,924,560	99,994,220	101,650,940	98,847,700
Manufac. goods & other wares..	47,086,095	43,792,350	48,858,910	39,054,470

The exports by water were as follows:—

	1845.	1846.	1847.	1848.
Total exports ...marks banco	124,205,160	127,213,630	154,376,650	122,728,700
Manufac. goods & other wares .	52,989,230	46,255,600	51,237,000	43,432,840

Of the above imports by land, a considerable proportion is for consumption at Hamburg or the vicinity. The table of exports by water may, therefore, be considered as fairly exhibiting the transit trade of Hamburg, by which is meant imports from abroad which are again exported.

3. There are several branches of trade respecting which the tables furnish no information. Among these is marine insurance.

The amount of insurance at Hamburg during the four years 1845–1848, was as follows:—

1845.....marks banco	331,293,400	at 1½	per cent average premium
1846	303,760,600	1 9-16 "	" "
1847	361,117,300	1 17-32 "	" "
1848	249,793,500	2 1-16 "	" "

Another important branch not touched upon in the tables is the *transportation of emigrants*. In this respect Bremen possesses a decided advantage, but the great commercial importance of this business has been for some time past more clearly recognized at Hamburg, and there is prospect of a fuller development of it. In previous years the number of emigrants sailing from this port was as follows:—

1837	2,427 persons.	1841	1,377 persons.
1838	955 "	1842	615 "
1839	1,569 "	1843	1,756 "
1840	1,407 "	1844	1,774 "

The destination of emigrants was as follows:

	1845.		1846.		1847.		1848.	
	Ships.	Persons.	Ships.	Persons.	Ships.	Persons.	Ships.	Persons.
To British North America.	..	....	3	399	9	1,431	6	775
United States.....	28	2,388	34	3,960	51	5,439	43	4,741
Brazil.....	..	....	4	498	5	758	..	....
South Australia.....	..	....	..	....	..	....	7	1,069
Total.....	28	2,388	41	4,857	65	7,628	56	6,585

At Bremen and Antwerp the emigrant movement, during the same period, reached a far greater height.

	1845.		1846.		1847.		1848.	
	Ships.	Persons.	Ships.	Persons.	Ships.	Persons.	Ships.	Persons.
At Bremen.....	212	31,849	235	32,372	235	33,682	207	29,947
Antwerp.....	...	5,223	88	13,120	102	15,730	66	11,073

4. Hamburg and Altona being very near neighbors, form commercially, to a degree, one place, and several tables are therefore given, exhibiting the shipping of Altona, the number of vessels arriving, and comparative tonnage of Hamburg and Altona, which are of less interest to the American than to the German reader.

5. The next tables furnish a general comparative view of the navigation and trade of the principal flags competing with the ports of the Elbe in the maritime trade of the North of Germany. The year 1848 is disregarded on account of the political events which disturbed it, and the year 1849 adopted in its stead. In giving values the amounts are reduced to Hamburg rates. The official sources used in this comparison are: for the Prussian Ports of the Baltic, the Commercial Archives, published at the Ministry of Trade, Manufactures and Public Works, year 1848, vol. i., p. 517, ii., p. 461: for Bremen, List of Imports and Exports at Bremen in 1847, by H. W. L. Keidel: for Netherlands, Statistics of the Trade and Navigation of the Kingdom of the Netherlands, in 1847—*Statistik van den handel en de scheepvaart van het koninkrijk der Nederlanden, over het jaar 1847*. *Uitgegeven door het Departement van financiën*: for Belgium, Tableau général du commerce avec les pays étrangers, pendant l'année 1847, publié par le ministre des finances.

NAVIGATION IN 1847.

	Hamburg, exclusive Altona.		Prussian Baltic ports.		Bremen.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Arrived....	4,178	631,890	5,563	1,030,522	1,669	302,132
Sailed.....	4,186	628,986	5,511	1,030,130	1,888	335,086
	Netherlands.		Belgium.			
	Vessels.	Tons.	Vessels.	Tons.		
Arrived.....	7,700	1,150,725	2,794	411,419		
Sailed.....	7,640	1,177,141	2,865	418,655		

MARITIME TRADE IN 1847.

	Hamburg.		Prussian Baltic ports.		Bremen.
	Imports.	Exports.	Imports.	Exports.	Imports.
E. India & China.m'ks b'co	3,448,500	1,548,500	.....	.....	1,082,400
Africa.....	703,300	653,400	.....	.....	225,800
North America	5,507,700	4,586,100	1,196,400	80,500	8,676,000

	Hamburg.		Prussian Baltic ports.		Bremen.
	Imports.	Exports.	Imports.	Exports.	
West Indies.....	12,854,500	10,442,700	630,000	.....	7,710,300
Brazil.....	10,836,800	3,736,900	1,748,500	325,700	1,133,400
La Plata & W. Coast Am.	3,625,800	4,642,200			279,500
Northern Europe.....	7,805,200	53,889,200	22,555,300	4,397,899	7,072,900
Great Britain.....	101,101,000	47,035,100	17,351,900	33,387,300	5,599,300
France.....	13,103,300	7,023,100	1,630,300	5,110,200	1,387,900
Southern Europe.....	5,717,400	1,718,100	2,228,900	29,980	439,900
Other sea-ports.....	33,110,200	8,460,100	9,599,700	8,030,400	10,161,600
Total.....	197,813,700	143,735,400	56,941,000	51,341,800	43,769,000

	Bremen.		Netherlands.		Belgium.	
	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.
E. India & China. m'ks b'co	348,100	73,964,100	12,017,000	2,256,700	414,600	.....
Africa.....	171,100	627,100	101,600	1,419,400	193,000	.....
North America.....	11,514,100	9,058,300	4,637,200	12,320,500	3,809,500	.....
West Indies.....	2,291,100	11,147,100	1,889,000	10,377,000	1,069,000	.....
Brazil.....	123,000	1,621,100	23,500	6,271,300	1,634,800	.....
La Plata & W. C'st Am.	550,800	243,500	5,000	4,557,200	481,900	.....
Northern Europe.....	2,956,400	29,363,300	14,264,000	28,055,600	1,840,000	.....
Great Britain.....	1,203,600	64,088,700	40,781,300	38,357,400	12,004,400	.....
France.....	109,200	9,484,100	9,900,900	10,132,100	3,809,800	.....
Southern Europe.....	24,400	11,123,900	10,970,000	6,005,400	3,210,100	.....
Other sea-ports.....	15,587,900	16,084,800	18,656,200	5,036,000	5,731,700	.....
Total.....	34,879,700	226,806,000	113,245,700	123,788,600	34,198,800	.....

IMPORTATION OF SEVERAL LEADING ARTICLES IN 1847.

	Hamburg.	Prussian Baltic ports.	Bremen.	Netherlands.	Belgium.
Coffee.....centner	745,985	99,213	138,697	1,130,973	497,972
Tea.....	16,691	2,401	5,333	51,539	1,901
Raw sugar.....	596,361	491,956	186,735	1,914,993	603,594
Tobacco.....	150,992	13,352	318,724	277,426	75,283
Cigars.....mille	76,294	24,270	32,830	19,165	16,229
Rice.....centner	228,208	172,552	121,127	445,167	275,294
Spices.....	31,297	14,540	9,620	28,550	9,550
Cotton.....	226,746	20,877	44,150	171,422	183,789
Indigo.....	13,795	3#4	659	28,188	6,723
Dye-woods.....	122,373	151,472	77,487	8,740	59,148
Skins.....	116,906	7,145	21,178	29,418	189,673
Sperm oil.....tons	33,702	50,000	36,050	48,640	8,320
Saltpeter...centner	26,487	7,796	3,727	33,098	11,958
Brimstone.....	38,995	38,699	7,057	56,354	26,944
Salt.....loads	1,360	15,900	1,150	9,380	11,500
Herrings.....tons	26,018	281,543	4,964	8,000	2,642
Wine.....hhds.	58,550	25,500	20,950	92,400	58,500
Iron.....centner	1,090,360	845,018	400,443	1,320,000	13,918
Coals.....loads	117,950	80,560	3,030	194,000	10,500
Yarn.....centner	416,836	4,284	11,274	204,827	43,379

From the tables we select several of more immediate interest for American readers.

NAVIGATION ACCORDING TO NATIONALITY OF VESSELS.

Flag.	ARRIVED.					
	1847.			1848.		
	Vessels.	Tonnage.	Crew.	Vessels.	Tonnage.	Crew.
American.....	17	2,562	224	35	4,822	412
Argentine.....	..	....	....	..	....	....
Belgian.....	4	137	19	8	465	61
Brazilian.....	3	195	40	1	99	18
Bremen.....	56	3,581	450	36	3,628	393
Chilian.....	..	....	....	2	166	24
Danish.....	469	15,030	2,367	27	1,428	207

Flag.	1847.			1848.		
	Vessels.	Tonnage.	Crew.	Vessels.	Tonnage.	Crew.
French.....	164	8,612	1,836	100	5,136	978
British.....	1,153	98,969	12,645	1,288	110,742	14,087
Hamburg.....	547	38,648	5,682	370	28,980	4,118
Hanover.....	1,144	14,339	3,107	707	9,831	1,976
Hawaii.....	....	....	....	1	47	8
Heligoland.....	....	....	....	35	102	102
Knipphausen.....	....	....	....	..	....	....
Lubec.....	4	305	37	5	433	48
Mecklenburg.....	15	1,161	132	3	201	22
Naples.....	5	434	64	1	73	10
Netherlands.....	287	9,754	1,961	286	10,860	2,016
Norway.....	60	3,323	452	40	2,520	326
Austria.....	1	226	21	2	255	28
Oldenburg.....	99	1,659	282	15	424	68
Portugal.....	17	1,026	176	10	564	96
Prussia.....	35	3,120	360	25	2,395	251
Russia.....	16	1,638	176	10	1,054	114
Sardinia.....	..	....	....	..	....	....
Schleswig Holstein.....	..	....	....	232	8,471	1,246
Sweden.....	39	3,424	390	30	2,857	323
Spain.....	42	2,348	429	30	2,050	341
Tuscany.....	..	....	....	1	62	8
Turkey.....	1	139	38	..	....	....
Venezuela.....	..	....	....	4	213	38
Total.....	4,178	210,630	30,888	3,304	197,878	27,311

SAILED.

Flag.	1847.			1848.		
	Vessels.	Tonnage.	Crew.	Vessels.	Tonnage.	Crew.
North American..	16	2,452	211	35	4,822	412
Belgian.....	4	137	19	7	366	49
Brazilian.....	3	195	40	1	99	18
Bremen.....	57	3,666	454	37	3,702	400
Chilian.....	..	....	....	2	166	24
Danish.....	467	14,922	2,352	30	1,594	230
French.....	163	8,584	1,830	97	4,970	955
Great Britain....	1,157	98,891	12,643	1,293	111,551	14,174
Hamburg.....	558	39,216	5,826	373	28,828	4,094
Hanover.....	1,146	14,062	3,083	713	9,743	1,978
Hawaii.....	....	....	....	1	47	8
Heligoland.....	....	....	....	35	102	102
Knipphausen.....	....	....	....	..	....	....
Lubec.....	8	586	69	4	386	43
Mecklenburg.....	11	888	98	5	346	44
Naples.....	5	434	64	1	73	10
Netherlands.....	285	9,597	1,941	265	10,274	1,937
Norway.....	63	3,526	479	40	2,488	327
Austria.....	..	....	....	2	255	28
Oldenburg.....	95	1,632	273	19	473	71
Portugal.....	17	1,026	176	10	564	96
Prussia.....	33	2,600	305	25	2,622	273
Russia.....	16	1,541	172	8	877	91
Sardinia.....	..	....	....	..	....	....
Schleswig Holstein.....	..	....	....	235	8,578	1,267
Sweden.....	40	3,380	392	27	2,536	287
Spain.....	42	2,327	428	29	1,993	332
Tuscany.....	..	....	....	1	62	8
Venezuela.....	..	....	....	3	151	31
Total.....	4,186	209,662	30,855	3,298	197,668	27,292

IMPORTS FROM THE UNITED STATES.

	1847.		1848.	
	Quantity.	Value.	Quantity.	Value.
Cotton.....centner	69,629	2,864,200	72,031	1,839,510
Whale oil.....stek.	38,435	230,800	22,702	138,000
Raw sugar.....centner	3,142	43,030	3,074	38,290
Whalebone.....	4,256	462,540	1,562	150,430
Skins and hides.....	....	160,900	....	5,400
Rice.....	29,455	507,800	20,954	282,200
Tobacco.....	5,646	134,750	6,180	116,260
Hops.....	594	17,330	774	14,840
Potash.....	7,362	148,090	6,085	126,200
Coffee.....	396	9,470	2,144	42,810
Tea.....	....	....	86	7,050
Campeachy wood.....	11,310	37,280	13,668	50,590
Red wood.....	634	8,200	935	9,450
Brazil wood.....	5,883	29,150	....	....
Quercitron.....	1,774	16,680	1,879	12,380
Gum copal.....	101	10,270	....	....
Other dye-stuffs.....	2,269	105,900	395	15,870
Pimento.....	325	10,300	2,261	59,180
Other spices.....	241	31,770	14	6,350
Clover.....	286	6,560	....	....
Honey.....	3,187	44,390	1,696	23,250
Wax.....	100	7,790	98	7,620
Rum.....	2,046	5,430	....	....
Wheat.....	2,643	33,140	426	5,460
Tallow.....	391	15,050	2,269	64,550
Beef and pork.....	18	400	1,918	31,340
Other provisions.....	....	34,140	....	6,430
Sarsaparilla.....	523	27,080	143	11,270
Rosin.....	21,708	53,050	12,900	28,660
Turpentine oil.....	7,727	180,000	6,672	129,150
Other drugs.....	2,663	105,180	1,052	46,530
Cocoa.....	583	15,520	....	....
Rubber shoes.....pairs	4,248	10,790	2,762	5,750
Cigars.....M.	597	20,250	177	6,280
Mahogany.....cubic feet	72,661	22,090	77,256	35,500
Various woods.....	....	23,820	....	28,970
Tobacco stems.....	285	1,490	2,647	11,230
Other articles.....	....	73,050	....	128,310
Specie.....	....	....	....	740
Total value.....marks banco		5,507,680		3,485,830

EXPORTS TO THE UNITED STATES.

	1847.		1848.	
	Quantity.	Value.	Quantity.	Value.
Cotton goods.....packages	2,522	769,480	2,546	837,970
Woolen and half woolen goods.....	811	877,120	619	671,150
Rough goods and furs.....	117	189,010	76	68,590
Zinc.....centner	31,132	372,490	41,274	353,820
Mercury.....packages	723	157,840	610	107,750
Woolen yarn.....centner	469	161,230	229	80,150
Various manufactures.....packages	293	122,810	418	261,460
Various drugs.....centner	1,069	74,070	960	56,300
Hollow and glass ware.....packages	2,273	170,060	1,392	122,290
Bristles.....centner	409	44,390	224	22,390
Linen.....	582	153,230	210	105,200
Sealskins.....	40,548	37,850	3,420	4,520
Silk goods.....packages	79	117,830	49	91,150
Leeches.....M.	178	18,730	3	260
Animal hair.....centner	172	2,690	23	5,050

	1847.		1848.	
	Quantity.	Value.	Quantity.	Value.
Silk.....lbs.	570	8,580	40	500
Iron.....cwt.	1,072	9,930	....	....
Hair cloth.....packages	57	61,530	77	90,000
Printed books and music.....	75	21,110	81	16,080
Nickel.....lbs.	2,795	17,180	3,040	17,130
Rags.....centner	7,532	66,770	6,257	35,130
Soda.....	253	18,850	1	80
Zinc plates.....	1,723	30,200	545	7,620
Wool, undressed.....	25	3,000	22	2,700
Instruments.....packages	98	23,730	93	25,180
Pictures and lithographs.....	28	6,600	15	7,050
Pen-holders.....M.	2,766	9,510	1,960	3,750
Various coloring materials.....centner	19	540	42	1,950
Cane for chairs.....	....	....	249	4,140
Basket-willow.....bundles	3,364	3,780	10,716	10,430
Porcelain and stoneware...packages	131	19,650	105	11,840
Red wood.....cwt.	1,848	11,320	1,510	8,090
Wine.....	1,223	13,920	457	3,860
Calf & sheep skins.....piece	4,702	7,980	24,231	14,410
Leather & leather goods....packages	51	13,590	30	6,880
New cordage.....cwt.	895	17,720	56	1,010
Cummel and aniseed.....	372	7,110	462	7,330
Demijohns.....pieces.	14,435	5,990	12,366	5,600
Other articles.....	....	167,570	....	112,870
Total value.....marks banco		3,814,990		3,181,710

An article in the "*Hamburger Borsenhalle*" gives a commercial review for the year 1849, and some statistics of the trade and navigation of Hamburg during that year, which will be of interest to our readers, and will bring our information down to the latest date. But we shall look forward with interest to the next official report from Hamburg for fuller and more authentic details. The article complains of the depressing circumstances under which the trade of Hamburg labored in 1849, although of a more satisfactory character, in general, than that of 1848. Until the middle of February the Elbe was blocked up by the ice, from the 12th April to the 12th August it was blockaded by the Danes, and from the end of November again blockaded by the ice. Foreign wars, internal confusion, disturbances in Baden, and revolution in Hungary, combined with the elements to depress the trade of Hamburg. The local and inland trade was the most animated, on account of the deficiency of previous supplies, as well as from a speculative spirit induced by low prices, the blockade of the Elbe, the encouraging reports from abroad, but above all the abundance of idle capital. The rate of discount was from 1 to 3 per cent, the year round. At the beginning of the year there was a lively demand for that great article of Hamburg trade, coffee, which was then selling at $3\frac{1}{2}$ marc banco for ordinary Brazil—it being the favorite object of ceaseless speculation, and gradually rose, but with many fluctuations, to $5\frac{3}{4}$ marcs banco—a price 80 per cent higher than that at which it was quoted at the beginning of the year. 169,000,000 lbs. changed hands—more than twice the sales of the ordinary years. 85,000,000lbs. were sold the last three months of the year.

A good business was also done in *cotton, tobacco, spices, dye-stuffs, metals, wool, clover*—which all advanced. This was also the case with sugar the first half of the year, but on the raising of the blockade there were extensive importations. Hides gradually rallied from previous depression.

Exact statistics are not at hand at the close of the year, except of the colonial and corn trade, which are published periodically. For statistics of other branches of business in which there was much activity—manufactures, exports, direct and indirect freight business, banking and exchange—recourse must be had to the tables of the Statistical Bureau, when published.

After the raising of the blockade the export trade was very lively, particularly to the West Indies, Mexico, West Coast of America, and the new-found market of California; and the foreign carrying business compensated to a great degree for the loss of business occasioned by the wars at home.

"We close the year," remarks the editor of the *Borsenhalle*, "with the pleasing hope that the new year will bless the world with a more settled state of political affairs, that the negotiations with Denmark will soon come to a favorable termination, and that the policy of cabinets will interfere as little as possible with that freedom which is indispensable to the operations of the merchant. We take with us into the new year the greater confidence on this point because the great commercial States—England, North America, and Spain—have set the example of freeing commerce of every fetter; and already Holland, Austria, and Russia itself, have resolved to give heed to this necessary tendency towards a free and equal development of commercial intercourse. This happy turn of affairs must soon bear the best of fruits for Hamburg, and, in case peace is restored, secure for us a good business year in 1850."

This enthusiasm of the worthy Hamburg editor at the prospect presented by the opening of the carrying-trade of all the world to his fellow citizens is easily understood, and we sympathize with it heartily. We hope Hamburg will get her share—we *know* that our countrymen will get theirs.

The following tables give the Navigation of Hamburg in 1849:—

ARRIVED.			
	Vessels.	Capacity. Common last.	Crew.
With cargo	3,164	188,094	26,287
Empty and in ballast.....	295		
Total.....	3,459		

From Greenland.....	3	From Sweden.....	4
United States.....	34	Denmark.....	3
Mexico, east coast.....	9	Holland.....	397
West Indies.....	85	Belgium.....	53
South America.....	92	Austria.....	13
West Coast of America..	5	Asia Minor.....	10
Africa.....	14	Great Britain.....	1,570
East Indies and China....	26	France.....	143
Germany.....	893	Portugal.....	21
Russia.....	10	Spain.....	37
Norway.....	3	Italy.....	34

SAILED.			
With cargo.....	1,787	Empty & in ballast.	1,629
Total.....		3,416	

TRADE OF HAMBURG, 1849.		
	Imports.	Stock on hand, Dec. 31.
Coffee.....	75,300,000 lbs.	14,000,000 lbs.
Sugar.....	5,000,000 bags, Brazil.	
	62,500,000 lbs.	16,500,000 bls.*

* Of which, 1,400,000 pounds were foreign refined.

Rice	{	10,807 casks.	1,050 casks.
		70,841 bags.	44,550 bags.
Raw hides	{	312,500 pieces.	
		1,226 bales }	5,700 p'ces.
Tea		13,502 chests.	19,378 ch'ts.
Cotton		63,846 bales.	34,000 bales.

ART. V.—HOW SHOULD RAILROADS BE MANAGED?

THE materialistic tendency of the age is in nothing so strikingly exhibited as in the intensity of the desire to diminish the quantity of time necessary to pass from one spot of the earth's surface to another. The first railroad charter in the United States was granted March 4th, 1826, to Thomas H. Perkins, William Sullivan, Amos Lawrence, David Moody, Solomon Willard, and Gridley Bryant, to convey "granite from the furnace lot, and from the granite ledges near said lot, in Quincy, to tide-water in Quincy, or Milton." The first railroad in the United States, upon which passengers were conveyed, was the Baltimore and Ohio Railroad, chartered February 28th, 1827, and which was opened to Ellicott's Mills, a distance of thirteen miles from Baltimore, December 28th, 1829. A single horse was attached to two of Winan's carriages, containing forty-one persons, which were drawn with ease, eleven to twelve miles per hour. Several parties of ladies and gentlemen, and also several members of Congress, were present at the opening. The number of miles of railroad now in operation in the United States is about seven thousand; eleven hundred of which are in the State of Massachusetts; one thousand in the State of New York; and the remainder in the States lying east of the Mississippi. The increase of this species of locomotion may be considered somewhat remarkable, when we consider that Benjamin Franklin, postmaster of Philadelphia, in 1743, in an advertisement dated April 14th of that year, announces "that the northern post will set out for New York on Thursdays, at 3 o'clock in the afternoon, till Christmas. The southern post sets out next Monday for Annapolis, and continues going every fortnight during the summer season." At that time the post between Philadelphia and New York went once a fortnight; now there are three daily lines of communication between the two cities. The news of the battle of Bunker Hill was two weeks reaching Philadelphia. William Ellery, a delegate in Congress in 1777, occupied from October 20th to November 15th, in journeying on horseback from Dighton, Mass., to York, Penn. And Josiah Quincy, father and grandfather of the mayors of that name, of Boston, spent thirty-three days upon a journey from Georgetown, S. C., to Philadelphia, in 1773. The Newcastle (Eng.) Courant of October 11th, 1712, advertises, "that all that desire to pass from Edinbro' to London, or from London to Edinbro', or any place on that road, let them repair to Mr. John Baillie's, at the Coach and Horses, at the head of Cannongate, Edinbro', every other Saturday; or to the Black Swan, in Holborn, every other Monday; at both of which places they may be received in a stage-coach, which performs the whole journey *in thirteen days, without any stoppage, (if God permit,)* having eighty able horses to perform the whole stage. Each passenger paying £4 10s. for the whole journey. The coach sets out at six in the morning." Now there is a daily morning and evening train between

the two cities, accomplishing the distance (377 miles) in eight hours, at a fare of £3 5s. And it was not till 1825 that a daily line of stage-coaches was established between the cities, accomplishing the distance in forty-six hours.

A letter can now be transmitted from St. Petersburg, across an ocean and a continent, to San Francisco, in fifty days; a feat which could not have been accomplished, even so late as a dozen years since, in less than two hundred. In 1790, the length of the post-routes in the United States was 1,875 miles; at the present time, it cannot be less than one hundred and seventy thousand. And in contemplating the progress which has ensued, it is a cause of humiliation that, as in the instance of other great inventions, so many centuries have elapsed during which the power of steam, an element almost constantly within the observation of man, were, although perceived, unemployed. But reflection upon the nature of man, and his slow advancement in the great path of fact and science, will at once hush the expression of our wondering regret over the past, while a nobler and more cheering occupation for the mind offers itself in speculation upon the future. The Hon. Wm. Jackson, in a lecture delivered January 12th, 1829, at Boston, before the Massachusetts Charitable Association, stated "that the commissioners, upon the survey of a route from Boston to Albany, presented several calculations upon the present travel and transportation; and have come to the conclusion that the net receipts from the use of the road, after deducting expenses of keeping the road in repair, will amount to a sum exceeding \$60,000 a year. That the number of passengers annually passing the road would be 23,000; and the amount of goods passing between Boston, Albany, and Troy, but little short of 30,000 tons." In 1849 the net income of the Worcester and Western railroads was over a *million of dollars*; the number of passengers transported over the Western Railroad was 959,557; and the number of tons of merchandise transported over the Western Railroad was 273,608. If such was prophecy, and such is reality, you may well take courage, good reader: for if you should live to behold the centennial anniversary of the battle of Bunker Hill, there will probably be an hourly train of railroad cars between New York, Boston, and Philadelphia; a daily line to San Francisco; a daily line of steam-packets to Liverpool, and another to Havana.

But to our tale. "How should railroads be managed?" is a question more easily asked than answered. "*Ask now of the days that are past.*"

Upon the morning of the 7th of April, 1834, the first train of passenger-cars left Boston for Davis' Tavern, in Newton, to which place the Worcester Railroad was then opened. The Western Railroad was opened to Albany December 21st, 1841. The number of miles of railroad in operation in Massachusetts* January 1st, 1842, was 429 miles; and at present there are 1,100 miles in operation, constructed at a cost of about \$50,000,000. We select the railroads of that Commonwealth, for the two-fold reason, that they were opened at an earlier period, and that the data are more accurate, and fuller, than can be obtained from any other source.

The following table, compiled from the source before alluded to, will exhibit their progress during the past eight years:—

* For a series of tables exhibiting the condition and operation of the railroads of Massachusetts, see the successive numbers during the months of May, June, July, of the present year, of the *American Railway Times*, Boston. Robinson & Co. publishers: John A. Haven, editor. It would be well if New York, and the other States where railroads exist, would compel the different companies to make similar returns, so that information regarding railway management and economy could be collected and concentrated.

Years.	No. of miles in operation.	Amount expended in construction.	Receipts.	Expenses.	Net income.	Net income per cent on cost.	Total receipts per mile run.	Total expenses per mile run.	Net income per mile run.
1842	433	\$19,241,858	\$1,971,787	\$959,400	\$1,012,387	\$5 26	\$1 48	\$0 72	\$0 76
1843	460	19,971,593	2,118,284	1,001,313	1,116,971	5 59	1 47	0 70	0 77
1844	460	20,396,055	2,559,969	1,107,580	1,452,389	7 12	1 65	0 72	0 93
1845	462	21,572,820	2,895,219	1,281,031	1,614,188	7 48	1 63	0 75	0 88
1846	619	27,034,927	3,642,171	1,696,576	1,945,595	7 20	1 56	0 73	0 83
1847	712	32,796,363	4,964,352	2,372,079	2,592,079	7 94	1 56	0 75	0 81
1848	778	40,941,676	5,405,845	2,741,604	2,666,411	6 51	1 50	0 76	0 74
1849	944	45,125,768	5,741,799	2,896,818	2,850,981	6 32	1 51	0 76	0 75

It will thus be perceived that the net income has been gradually diminishing during the past four years, the receipts having increased 98 per cent, whilst the net income has increased but 77 per cent. This result is owing, not to an increase of expenses in working the several railroads, but to the fallacious doctrine which has obtained among a portion of railroad directors, that "*a reduction of fare will produce an increase of business.*" Of the expenses of the several roads, in this regard, let the directors themselves speak.

In the nineteenth annual report of the Lowell Railroad Corporation, the directors state:—"When this road was first opened for travel, the passenger fare between Boston and Lowell was put at one dollar. Reductions from this rate have from time to time since been made. On the 1st of November, 1844, it was reduced to seventy-five cents; on the 1st November, 1845, to sixty-five cents; and on the 1st June, 1848, to fifty cents." Of the operation of this reducing process let the following facts, taken from the source before alluded to, speak:—

LOWELL RAILROAD—PASSENGER RECEIPTS.

Years.	No. of passengers carried in the cars.	No. of miles run by passenger trains.	Passenger receipts.	Passenger receipts per mile run.
1844.....	359,824	100,243	\$165,284	\$1 65
1845.....	382,167	112,793	176,951	1 57
1846.....	400,886	134,683	185,235	1 38
1847.....	484,683	164,705	209,612	1 27
1848.....	525,764	174,660	201,219	1 15
1849.....	593,828	159,514	179,790	1 13

Thus it will be seen that under the operation of the low-fare system, 593,828 passengers transported over 159,514 miles in 1849, did not yield so good a return as 359,824 passengers transported over 100,243 miles in 1844, by 32 per cent. The directors of the Lowell Road further state in their report:—"Under the last extremely low rate of fare, (fifty cents,) the receipts from passengers diminished, in the first twelve months of its adoption, \$15,825 15; and in the last six months in a greater ratio. In consequence of this result, the directors have decided to raise the fares on the 1st December, 1849, to sixty cents, between Boston and Lowell, and in about the same proportion for less distances."

The directors of the Worcester Railroad, in their twentieth annual report, also state:—"Believing that the experiment of low prices was injurious to the profit of the road, and below a fair remunerating price, we have adopted a higher rate, taking effect on the 1st of January, 1850, and trust the measure will meet the approbation of the public, no less than the stockholders."

The further operation of the low-fare system is further exhibited, as follows:—

WORCESTER RAILROAD—PASSENGER RECEIPTS.

Years.	No. of passengers carried in the cars.	No. of miles run by passenger trains.	Passenger receipts.	Passenger receipts per mile run.
1844.....	451,679	140,899	\$234,633	\$1 67
1845.....	463,891	164,958	241,219	1 46
1846.....	470,319	195,692	279,793	1 43
1847.....	598,305	211,206	304,580	1 44
1848.....	807,143	256,989	332,886	1 30
1849.....	959,557	269,609	330,606	1 23

The year 1849 not yielding so good a return as 1844, by 26 per cent.

Upon the opening of the Fitchburg Railroad, in 1844, the way-fare was fixed at three cents per mile; and upon the opening to Fitchburg, the through-fare was fixed at two and a half cents per mile. It so continued until July 1st, 1848, when the through-fare was reduced to two cents, and the way-fare to two and a half cents per mile. The following table will fairly exhibit the working of the low, as well as the high-fare system:—

FITCHBURG RAILROAD—PASSENGER RECEIPTS.

Years.	No. of passengers carried in the cars.	No. of miles run by passenger trains.	Passenger receipts.	Passenger receipts per mile run.
1844.....	82,182	27,600	\$22,447	\$0 81
1845.....	196,699	110,229	100,817	0 91
1846.....	327,034	140,424	126,772	0 90
1847.....	494,035	158,140	159,492	1 01
1848.....	745,825	241,115	179,199	0 74
1849.....	875,410	226,973	204,668	0 90

The road was opened to Fitchburg March 5th, 1845. It will, therefore, be perceived that 875,410 passengers, transported 226,973 miles in 1849, did not yield so good an income as 196,699 passengers transported 110,229 miles, in 1845. And the net income, in 1848, under the reduced rate, was 27 per cent less than in 1847. Upon the 1st of January of the present year, the superintendent gave notice that thereafter the through-fare would be two and a half cents per mile, and the way-fare three cents, as nearly as practicable.

The committee appointed by the stockholders of the Old Colony Railroad to investigate the affairs of the company, in their report, state:—"On the subject of rates of fare, would remark that they have hitherto been too low, and approve the vote of the directors recently made, in raising the tariff of prices."

The following table will exhibit the passenger-fare per mile, run upon the eight main lines leading out of Boston, in 1849:—

Roads.	No. of miles run.	Amount of passenger receipts.	Passenger receipts per mile run.
Western	234,878	\$561,275	\$2 38
Eastern.....	232,505	404,072	1 74
Providence	181,670	225,640	1 24
Worcester.....	269,609	330,606	1 23
Boston and Maine.....	272,674	332,214	1 22
Lowell.....	159,514	179,790	1 13
Old Colony.....	174,558	169,669	0 97
Fitchburg	226,973	205,254	0 90

It will thus be seen that the Western and Eastern railroads, who have kept the even tenor of their way, and kept the tariff of fares at remunerating rates, have been most productive. The Providence Railroad has a compe-

titor in the Norwich and Worcester, and the Boston and Maine in the Lowell. The lowest in the scale of returns are those which have followed after idols.

An instance that a reduction of rates does not produce an increase of income, may be seen in the working of the British postage system. Prior to the establishment of the present rates, tenpence to one shilling were charged, which yielded, after paying *the whole charges of the packet service*, a clear surplus revenue to the nation of 1,600,000 pounds sterling. A reduction of postage was loudly called for, and granted to the public. The postage was fixed at once at one penny. For the few first years after the change, a net revenue of 600,000 pounds sterling was realized; and after having been in operation nine years, the net annual revenue has only risen to 803,000 pounds sterling; about half of what it was under the old system. And it has been raised to this point only during a year of extraordinary manufacturing activity in Great Britain; the exports from the United Kingdom, during the year just closed being 60,000,000 pounds sterling. Upon the whole, since the postage was reduced in 1841, the British post-office has not yielded a farthing to the government; but, on the contrary, has occasioned a loss of some hundred thousand pounds sterling. It is owing to this deficiency in the revenue that resort was had to the income tax. But this deficiency was little more than *half* of what really occurred, in consequence of the change. The expense of the packet service, *previously borne by the Post-Office Department, was thrown upon the Navy*. Lord John Russel stated recently in Parliament, that the cost of that service now amounted to 737,000 pounds sterling per annum.

The real account, therefore, would stand thus:—

Apparent net income for the year ending April 5th, 1850.....	£803,000
Deduct cost of packet service thrown upon the navy.....	737,000
Real net income.....	£66,000

It would require a uniform postage of at least three pence, in Great Britain, to insure a net income equal to that obtained under the old system.

The following will exhibit the operation in the United States, of the last two years, under the high system, and the first two years under the low system of postage:—

1844.	1845.	1846.	1847.
\$4,237,000	\$4,289,000	\$3,487,000	\$3,955,000

Another cause of the diminution of the net income of the railroads of Massachusetts may be seen in the disproportionate increase of freight over passenger income.

The following, taken from the source before alluded to, will exhibit the different sources of income of all the roads for the last eight years:—

Years.	Passenger receipts.	Freight receipts.	Mails, &c.	Total.	Total No. of miles run.	Total receipts per mile run.	Total expenses per mile run.	Net income p. mile run.
1842	\$1,217,866	\$669,882	\$84,239	\$1,971,787	1,334,701	\$1 48	\$0 72	\$0 76
1843	1,236,231	783,416	81,137	2,118,284	1,458,879	1 47	0 70	0 77
1844	1,498,206	963,863	80,343	2,559,969	1,555,603	1 65	0 72	0 93
1845	1,612,625	1,163,010	100,323	2,895,219	1,715,838	1 63	0 75	0 88
1846	2,018,163	1,467,969	119,217	3,642,171	2,339,484	1 56	0 73	0 83
1847	2,509,784	2,205,840	196,721	4,964,532	3,177,143	1 56	0 75	0 81
1848	2,849,722	2,335,407	176,753	5,405,845	3,598,089	1 50	0 76	0 74
1849	3,035,691	2,408,567	248,349	5,736,407	3,806,762	1 51	0 76	0 75

It will thus be seen that whilst the passenger income has increased but 149 per cent, the freight income has increased 260 per cent. And it will be further seen, that owing to the preponderance of freight over income, the expenses have increased, and the net income has consequently diminished during the past eight years.

Another cause of the diminution of the net income of the railroads of Massachusetts, is the injudicious construction of branches. There were twenty-one branch railroads in operation upon the 1st of January last, measuring ninety-five miles.

Of the branches connected with the Worcester Railroad, the directors, in their twentieth annual report, state:—"It will be seen that the cost of working the branches has exceeded their income \$4,929; which sums, together with the interest upon their cost, (\$34,509,) has made a draft upon the income of the main road of \$39,438."

The investigating committee of the Old Colony Railroad, in their report to the stockholders, state:—"That the loss from running the Abington and Bridgwater branch, is more than treble the receipts. That the receipts from the South Shore Railroad in 1849 were \$14,115, and the expenses \$29,625; thereby creating a loss to the main road of \$15,510. That the receipts from the Dorchester and Wilton branch in 1849 were \$4,618, and the expenses were \$16,153; thereby creating a loss to the main road of \$11,535."

Still another cause of the diminution of the net revenue of the railroads of Massachusetts, is the unprofitable investments in real estate, beyond what is necessary for the legitimate business of the road. The Samoset House, built by the Old Colony Railroad Company at a cost of \$51,525, was disposed of at auction by recommendation of the investigating committee, at \$11,825, payable in stock of the company at par. Other parcels of unneeded real estate were disposed of at a similar sacrifice. The Worcester Railroad also brought to the hammer several dwelling-houses owned by them in the city of Boston, but the bids were so far below the cost that the directors were induced to stop the sale. Investments in real estate beyond the actual wants of the roads seem to have been the besetting sin of most of the railroads of Massachusetts.

The extremely low rate at which freight is transported, is also another cause of diminishing net income. Owing to the somewhat imperfect manner in which the accounts of railroads are kept, it is also impossible to determine the exact per centage of cost of transporting freight, compared with the ratio charged; but we presume the following analysis of the account of receipts and expenses attending freight, as exhibited in the twentieth annual report of the Boston and Worcester Railroad Company, is not far from correct:—

Amount received for transportation of freight.....	\$331,338
" " mails, &c.....	8,985
" " gravel.....	21,250
Total receipts from freight, &c	\$361,573
EXPENSES	
Salaries, wages, and incidental expenses, chargeable to freight department.....	\$64,021
Repairs of freight-cars.....	21,063
Miscellaneous expenses chargeable to freight department....	166,887
	251,971
Net receipts from freight, mails, and gravel transportation	\$109,602

The rate generally is about four cents per ton per mile, at the present time, having been reduced within a year or two. How far such a rate can be considered remunerative we will not undertake to determine.

The profitability of a railroad, according to the experience of the Massachusetts Railroads, depends, first, upon the preponderating ratio of passenger to freight incomes; second, upon the amount of receipts per mile of the length of the road; thirdly, upon the lowness of cost per mile of the length of the road, as will appear by the following table:—

Name.	Length includ'g br'ches.	Cost.	Receipts, 1846.	Expenses, 1849.	Net income, 1849.	Net income p. cent on cost.	Total receipts p. mile run.	Total exp'ces p. mile run.	Net income p. mile run.
Eastern.....	75	3,612,348	517,929	183,980	333,949	9 24	1 86	0 66	1 20
Lowell.....	28	1,945,647	416,488	960,903	155,585	7 99	1 68	1 03	0 63
Western.....	155	9,926,952	1,343,811	588,323	755,488	7 61	1 84	0 81	1 03
Fitchburg.....	66	3,445,792	474,359	236,459	237,900	6 90	1 36	0 68	0 66
Boston & Maine	83	3,930,057	522,335	252,494	263,841	6 71	1 35	0 67	0 68
Worcester.....	69	4,908,332	703,361	405,551	297,810	6 07	1 53	0 88	0 65
Providence.....	53	3,370,270	354,332	163,682	190,650	5 66	1 45	0 67	0 78
Old Colony.....	45	2,292,400	252,790	175,239	77,551	3 34	1 07	0 75	0 32

The superior profitability of passenger over freight income, may be seen by contrasting the Eastern and Worcester railroads:—

Roads.	Passengers receipts, 1849.	Merchandise receipts, 1849.	Mails, &c., 1849.	Total receipts, 1849.	Total income, 1849, per cent.
Eastern.....	\$404,072	\$70,402	\$43,455	\$517,929	\$9 24
Worcester.....	330,606	331,338	41,417	703,361	6 07

The advantage of profitability in amount of receipts per mile of the length of the road may be seen by contrasting the Lowell Railroad and the Worcester Railroad:—

Roads.	Length, including branches, in miles.	Total receipts, 1849.	Receipts, per mile, in 1849.	Net income per cent on cost in 1849.
Lowell.....	28	\$416,488	\$14,871	\$7 99
Worcester.....	69	703,361	10,194	6 07

The advantage of profitability in lowness of cost per mile of the length of the road may be seen by contrasting the Fitchburg and the Worcester railroads:—

Roads.	Length, including branches, in miles.	Cost per mile.	Total cost.	Net income in 1849.	Net income per cent on cost in 1849.
Fitchburg.....	66	\$52,209	\$3,445,792	\$237,900	\$6 90
Worcester.....	69	71,185	4,908,332	297,810	6 07

Those roads which have their terminus at a remote distance from the metropolis, appear to be more profitable than those which terminate in the city, as appears by the following table:—

Roads.	Cost.	Net income, 1849.	Net income per cent on cost.	Total receipts per mile run.	Total expenses per mile run.	Net income p. mile run.
Worcester.....	\$4,998,332	\$297,810	\$6 07	\$1 53	\$0 88	\$0 65
Western.....	9,926,952	755,484	7 61	1 84	0 81	1 03
Providence.....	3,370,270	190,650	5 66	1 45	0 67	0 78
Taunton.....	306,390	23,419	7 62	1 95	1 13	0 82
New Bedford.....	498,477	44,840	9 00	2 17	1 06	1 11
Lowell.....	1,945,647	155,585	7 99	1 68	1 05	0 63
Nashua.....	641,083	57,083	8 90	2 49	1 58	0 91
Old Colony.....	2,292,400	77,551	3 34	1 07	0 75	0 32
Fall River.....	1,146,004	63,168	5 51	1 20	0 77	0 43

Another cause of unprofitableness in some of the railroads of Massachusetts is the numerous errors in the original location of roads; want of foresight in providing funds, and neglect of directors, agents, &c., &c. The investigating committee of the Vermont and Massachusetts Railroad, in their report to the stockholders, state:—

"It may be proper to bring to your notice what seems to us as certainly one of the most serious mistakes which have occurred in the location of your road, running, as it does, by way of Gardner and Templeton, instead of by way of Winchendon, and from thence to the line of the road as it now is at Royalston. Had the line through Winchendon been adopted, it would, in our opinion, have been of incalculable advantage to this company. Application was made to the county commissioners for a change of location, but after a long and expensive trial, it was refused. Application was also made to the Legislature, which also, after a very violent opposition, was refused. The then board of directors, having no doubt but that the change of line would be granted, without hesitation or delay, and in anticipation of the grant, proceeded to construct the road towards Winchendon, and expended thereon \$29,965, on what is now a part of the Cheshire Road; but for which the Vermont and Massachusetts Railroad Company have only received \$20,000, making a loss of \$9,695; to which, if there be added the loss of interest, the expenses of the trial before the county commissioners, and the expenses attending the application to the Legislature, &c., it will be seen that the loss has been a pretty severe one, aside from the loss of business which would have been secured, had the line to Winchendon been adopted."

Again they state, "It will be perceived that the number of shares issued, and to be issued, will exceed the number authorized by the charter, by the number of 1,074 shares." Rather a loose way of doing business, one might feel authorized in exclaiming. According to the same document, the sum of \$80,476 has been expended in interest upon temporary loans. The road was chartered in 1844 with a capital of \$2,500,000. The par value of the shares was \$100. In October, an issue of a large number of shares, at \$75, was made. In November, 1848, another issue was made, at \$50. Large sales of the bonds of the company were made at a discount of from 12 to 15 per cent. The road was finished February 20th, 1849, at a cost of \$3,160,301. So that, what with errors in original location, want of foresight in providing funds, and delay in opening the road, at least \$500,000 has been lost to the stockholders. But the road is now under a new direction, and with attention and economy in management, will no doubt be a productive property.

The investigating committee of the stockholders of the Old Colony Railroad, in the report before alluded to, state "That the earnings of the road for the year 1849 were \$275,067; the running expenses were \$207,616; leaving a balance of \$67,450; but from that amount should be deducted interest and sundry other items, amounting to \$59,595; leaving a net profit of \$7,875, upon a capital of \$1,836,164. Your committee think that it is a great mistake to make no allowance for depreciation in managing the property, which is deteriorating by use. The question now arises, from what sources the dividends which have been declared and paid, as the earnings of 1847 and 1848, were derived; and the committee are satisfied that these dividends were paid out of the capital of the company. The last dividend which the company made was \$48,393, or 3 per cent on the capital, and was payable on the 22d January, 1849. But there were no funds in the treasury for the payment of this dividend, although the directors, on the re-

port of 1848, made the most flattering statements in regard to the situation of the road. Nothing was to be done but to create new stock and bonds, to provide means for paying the dividend; and accordingly, on the 9th January, 1849, the directors created 3,200 shares of additional stock, at \$75 per share, and \$320,000 of bonds, at 90 cents on the dollar, payable in instalments; the first instalment on both stock and bonds being payable on the same day that the dividend was to be paid. The dividend was thus provided for, and actually paid out of the capital stock of the company. The amount of extra interest which has been actually paid by the company on notes and memorandum checks, from November 30th, 1847, to October 5th, 1849, *above the legal interest*, was \$38,048—an average of nearly 16 per cent per annum. The reserved fund, (\$14,142,) as represented in report to stockholders, in 1848, is of no value; *it could not be relied upon to pay one dollar of the company's liabilities*. It was made up of cross entries, for the purpose of swelling the credit of income, applicable to dividends, and to represent the company as being in a more prosperous situation than it really was. On the 30th November last, there were outstanding liabilities against the company, not mentioned or alluded to in the director's report, amounting to \$12,966. How can it be said that there is a reserved fund, when an amount of debts larger than the reserved fund, properly chargeable to income, is not deducted therefrom?"

We hope that there is some mistake in the testimony of Mr. E. H. Derby,* that the reserved funds of most railroads are similar to ours, consisting "of cash items absorbed by construction, and due therefrom to income account," as it would materially affect the soundness of other roads.

The following table will exhibit the amount of reserved funds, and also the amount of funded and floating debts of seven of the principal railroads of Massachusetts, taken from the annual reports to the Legislature in January last:—

Roads.	Amount of reserved fund.	Amount of funded and floating debt.
Fitchburg	\$164,606	\$195,256
Eastern	162,850	572,753
Old Colony	46,702	379,258
Boston and Maine	45,293	120,936
Providence	36,351	224,700
Worcester	8,409	679,582
Fall River	7,255	101,141
Total	\$471,466	\$2,272,726

The investigating committee of the Old Colony Railroad further state:—"That 2,069 shares of stock were unauthorizedly issued; that the practice of an agent of the road making purchases of *himself* is much to be deprecated; that the treasurer's department was carelessly managed; that the superintendent, from fear of giving offense, had not dismissed employees when they should have been discharged for incapacity or unfaithfulness; that abuses had existed for a long time in the management of the paint-shop; that work had been done by the foreman and his son on Sundays, for the purpose of obtaining from the company double pay, which was allowed for work done on the Sabbath; that the number of free passes unjustifiably reached to the number of 6,541 during the last year; and numerous other abuses of a greater or less magnitude."

* See appendix to Report, page 23, in answer to Interrogatory 47.

The committee, however, come to the conclusion that the losses of the company are attributable to the injudicious system of management which has prevailed, and that by the application of judicious reforms, the property may be rendered productive.

The investigating committee of the Boston and Maine Railroad Co., in their report to the stockholders, state:—"Upon looking into its affairs, one of the first things which attracted our attention, as requiring retrenchment, was the enormous expenses of the establishments for the manufacture of engines and cars at Boston and Lawrence. The amount invested in them was \$131,594; the annual expenditures for labor, materials, &c., &c., was \$164,414; the value of cars and engines manufactured, and value of repairs done, was estimated at \$109,781 per annum; showing a balance against the shops, exclusive of interest, insurance, and taxes, of \$54,633. Your committee are of opinion that such large manufacturing establishments, even under the most judicious management, are not desirable, as appendages to railroads. From the most diligent inquiry, they have not been able to learn that any railroads which have embarked in such experiments, have realized an adequate remuneration therefor. And in the large outlays made to carry on the operations of the engine and car shops, they think they have discovered one of the principal causes of the present condition of the finances of the company; and that with the retrenchments and curtailments which can be properly applied therein, a very great saving may be made to the road. The committee have, therefore, unanimously come to the conclusion, that the best course to be pursued by the company, is to abandon the engine-shop at the island in Charles River, as a manufactory, or as a place for general repairs, and to reduce the force at Lawrence to one adequate only to repairs. Your committee are further of opinion, that the free ticket list should be reduced, having ascertained that 5,016 passengers were transported over the road in May last without fare; in the month of June, 3,199; and in the month of July, 2,390. In conclusion, your committee would state, that a board of directors, who will devote their personal attention to the affairs of the company, and guard against extravagant expenditures, with the same care and scrutiny which they devote to their private interests, are the proper persons to whom this business should be entrusted. Were the rights and property of this corporation the estate of a private individual, of good business capacity, no one can doubt that it would be one of the most lucrative investments which could be made; and so it must become, under prudent and judicious management, as a corporation."

The charge of "interest" seems to be a considerable item of expenditure upon several of the railroads of Massachusetts; though how it can well be, in a business in which the operations are almost exclusively in cash, it is somewhat difficult to conceive. The following will show the amount paid by six of the principal companies in 1849:—

Old Colony	\$38,256	Providence.....	6,224
Worcester	23,892	Lowell.....	5,384
Boston and Maine	16,216		
Fall River.....	8,837	Total.....	\$98,809

The Western, Eastern, and Boston and Maine railroads, have a loan from the Commonwealth, upon which only 5 per cent per annum of interest is paid, which enables them to pay better dividends than their less fortunate associates. The Commonwealth is also a large stockholder in the Western Railroad. The policy of a State becoming a partner in the conduct of any

business, whether railroad, bank, or college, may seriously be called in question. In 1847, the Vermont and Massachusetts Railroad Company applied to the Legislature of Massachusetts for a loan, but the application was refused. The subsequent career of that company will show that the Commonwealth fortunately escaped what would have proved a severe infliction.

The practice of issuing bonds appears to be growing in favor, but an inspection of the several railroads of Massachusetts will show that those roads are most profitable whose capital is exclusively owned in shares.

If the net income of the Massachusetts railroads is constantly diminishing, how, it will naturally be asked, are the dividends kept up? The following list will show that the railroads named below, divided in 1849 more than their net earnings:—

Roads.	Net income on cost.	Rate of divid'nd.	Roads.	Net. income on cost.	Rate of divid'nd.
Fitchburg.	\$6 90	\$8 00	Providence	\$5 66	\$6 00
Nashua.	8 90	10 00	Lowell.....	7 99	8 00
Taunton.....	7 62	8 00			
Total.....				\$37 07	\$40 00

But, it will be replied, most of the railroads have a reserved fund, or surplus! Very true. But have they not also a floating debt? By reference to a preceding page, it will be seen that their floating debt is nearly five-fold greater in amount than that of their surplus. In the language of the investigating committee of the Old Colony Railroad Company, "*how can there be a reserved fund, when an amount of debts exists larger than the reserved fund.*"

The directors of the Fitchburg Railroad Company, in their annual report to the Legislature, January last, state the following facts:—

Amount of net earnings in 1849.....	\$237,900
" dividends declared in 1849	212,000
" floating debt, December 31st, 1849	195,256
" surplus " " "	164,938
" " " " 1848	145,606

By all which, one would be led to believe that the net available means of that road exceeded the amount of dividends, on the 31st December last, \$25,900; and that \$19,332 were added to the surplus fund; though what becomes of the difference between the two amounts (\$6,568) is somewhat unfathomable. But, we apprehend that Bennett or Comer, or any correct accountant, would state the case thus:—

Amount of net earnings in 1849.....	\$237,900
" surplus, December 31st, 1849.....	164,938
Total available means, December 31st, 1849.	\$402,838
Deduct floating debt " "	195,256
Net available means, applicable to dividends in 1849	\$207,582
Amount of dividends declared in 1849.....	212,000
Excess of dividends over net available means in 1849...	\$4,418

It would be well if such fallacies were done away with, and the capital of that company made to represent the actual cost, instead of exhibiting, as it does in the case of that company, a difference of \$176,012. The amount of net earnings upon the cost of the Fitchburg Railroad Company, and the dividends declared in 1849, may be thus stated:—

	Net income on cost.	Amount of dividends.
1846	\$9 02	\$10 00
1847	9 03	10 00
1848	6 80	8 50
1849	6 90	8 00
Total.....	\$31 75	\$36 00

The Worcester, Lowell, Fitchburg, and Old Colony, have very wisely raised their fares to the level of the Western, Eastern, and other well-managed railroads; and the result has been an improvement in the condition of their affairs.

Upon the whole, Massachusetts with her one mile of railroad to each seven square miles of her geographical surface, may well be proud of her system of internal improvements. Her metropolis may be compared to a *hand with seven fingers*, stretching several thousand miles in as many different directions, into the interior. And from the foregoing facts and statements, the conclusion is justifiable, that railway property can be made remunerative to its owners, provided the following principles be kept steadily in view:—

First. Ample means should be provided for construction, before commencing the enterprise.

Second. The rates for transportation of passengers and merchandise should be such as to secure the largest income with the least expense.

Third. "*Every business by itself*," is a good maxim among railroad companies, as in commerce or manufactures. The business of a railroad company should be exclusively confined to the transportation of passengers and merchandise; and any departure therefrom cannot but be attended with danger. *Let these things be, and all will be well.*

D. M. B.

JOURNAL OF MERCANTILE LAW.

COMMERCIAL CODE OF SPAIN.

NUMBER XIII.

WE continue our translations from the *Codigo De Comercio* of Spain. The present number relates to—

CAPTAINS, OFFICERS, SEAMEN, AND SUPERCARGOES OF SHIPS AND VESSELS.

CONCERNING MASTERS OF VESSELS.—634. The captain of a vessel must be a native of the kingdom of Spain, and a person capable of contracting and binding himself.

Strangers cannot be masters, unless they have a letter of naturalization, being also required to give security for the faithful performance of their trust, equivalent to one-half, at least, of the value of the vessel which they may command.

635. The master of a vessel must be skilled in the art of navigation.

His examination, and other requisites necessary to exercise this charge, shall be according to what is prescribed by the Ordinances of Matriculation of the People of the Sea.

636. The *naviero* (ship's husband) who reserves to himself the right to exercise the captaincy of the vessel, and has not the letters-patent of a captain, according to said ordinances, shall be limited to the economical administration of the affairs of the vessel, availing himself, so far as respects the navigation of the vessel, of the services of a captain, approved and authorized in the terms which the ordinances aforesaid prescribe.

637. The captain, who is a native of Spain, shall be obliged to give security, or not to do so, according as he may contract with the *naviero*.

And if the latter relieves the captain from giving such security, it cannot be exacted of him by any other person.

638. The captain is the chief of his vessel, whom the whole crew, or ship's company ought to obey; observing and fulfilling whatever he may command for the services of the vessel.

639. It belongs to the captain to nominate to the naviero the several individuals who are proposed to make up the company or crew of the vessel.

And the naviero has the right to elect definitively those who are to be enrolled as the ship's company.

But the naviero cannot compel the captain to receive into his crew any person who may not be to the captain's content and satisfaction.

640. With respect to the power which belongs to the captain to inflict punishment and penalties on those who disturb the order of the vessel, or commit offenses against its discipline, or fail to perform the services which belong to them, there shall be observed those things which the laws of the naviero prescribe.

641. Neither the naviero nor consignee being present, the captain is authorized to contract for the freights, under the instructions which he may have received, consulting, with the greatest solicitude and zeal, the advancement and prosperity of the naviero.

642. The captain shall take upon himself the necessary measures to keep the vessel well apportioned, fitted and found, in rigging, tackles, stores, and provisions; buying for this purpose whatever he may consider really necessities, at all times when circumstances do not permit him to ask for prior instructions of the naviero.

643. In urgent cases, during the voyage, the captain can make such repairs in the vessel, and in her rigging and apparel, which may be really necessary to enable her to continue and finish the voyage; provided that if he should arrive in a port where there may be a consignee of the vessel, he must act with his approbation. Beyond this case, he has not the power, of himself, to order repairs or works, or to incur any additional expense to fit out the vessel, unless the naviero consents to the repairs, and approves of the cost.

644. Whenever the captain finds himself without funds belonging to the vessel, or its owners, to pay for the repairs, refits, and provisioning of the vessel, so far as may be necessary in case of arrival, he shall apply to the correspondents of the naviero, if there are any in the same port, and, if not, to those interested in the cargo.

And if by none of these means he can procure the funds which he may need, he is authorized to take them up at maritime risk, or gross obligation, covering the hull, keel, and apparel of the vessel, with the loans and premiums; but he must do this with the previous license and approbation of the Tribunal of Commerce in the port where he may arrive, it being Spanish territory; and in foreign countries, with the license and approbation of a Spanish consul, if there is one there; and if there is not, then by the license and approbation of the authority which takes cognizance of commercial affairs. These measures not taking effect, he can take a portion of the cargo sufficient to cover the expenses which may be absolutely necessary for the emergency; selling it under judicial authority, and at public sale.

645. The vessel being ready to sail, cannot be detained.

The captain cannot be arrested for debts, unless such debts are incurred for articles supplied for the same voyage.

In such case, security may be demanded, as provided for in article 604.

This regulation shall apply to all other persons composing the ship's company.

646. Captains are obligated to make a formal entry of everything concerning the administration of the vessel, in three books, bound and paged, whose leaves shall be authorized by the captain of the port in which the vessel is matriculated.

In the first book, which shall be called the cargo-book, the receipt and delivery of all the merchandise which may be loaded in the vessel, expressing the marks and number of the bales, the names of the shippers and consignees, the port of lading and discharge, and the freights which may be earned and agreed upon, shall be recorded.

In this same book the names, the hailing, and destination of all the passengers, shall be registered.

In the second book, under the title of the account book, shall be inserted all that which concerns the interests of the vessel during the voyage; noting, article by article, what the captain receives and expends for repairs, rigging, furniture, provisions, wages, and other expenses which may be occasioned, of whatever class such expenses may be; setting down, in the same book, the names and domicile of all the crew, their respective wages, the amount which they may have received on account of their wages, and the orders which they may have left for their families.

In the third book, which shall be called the *Diary of Navigation*, (or the log-book,) shall be noted, day by day, the events of the voyage, and also the measures resolved upon concerning the vessel and cargo, which require the concurrence of the officers of the ship.

647. Should, during the voyage, any passenger, or any of the ship's company die, the captain shall put in safe keeping all the papers and things belonging to the deceased, making an exact inventory of everything, with the assistance of two witnesses, who shall be some of the passengers, if there are any on board; and, in want of passengers, with the assistance of two individuals of the ship's company.

648. Before putting cargo on board of the vessel, a prolix, or minute survey shall be made of her state and condition by the captain and officers, and by two masters of ship carpentry and caulking; and, finding her safe to begin her destined voyage, it shall be so recorded, by unanimous consent, in the book of resolutions, or log-book of the vessel; and, in the contrary case, the voyage shall be suspended until the necessary repairs are made.

649. In no case shall the captain leave the vessel on entering and sailing from ports and harbors. Being on the voyage, he shall not remain over night out of the ship, unless on important business relating to his official duties, and not on his own private affairs.

650. The captain, on arriving at a foreign port, shall present himself to the Spanish consul in twenty-four hours after having entered his vessel, and he shall make a declaration before him of the name of registration, the course of the voyage, and the destination of his vessel, and of the merchandise which compose his cargo, and of the causes of his arrival; taking certificates from the consul that this has been done, and also of the date of his arrival and departure.

651. When a captain makes a port by stress of weather, in Spanish territory, immediately on landing he shall call on the captain of the port and declare the causes of his arrival.

The same officer, finding the causes certain and sufficient, shall give him a certificate to protect his rights.

652. When a captain, whose ship shall have been wrecked, shall alone be saved, or with him a part of his crew, and he shall present himself to the nearest authority, and shall give an account, sworn to, concerning the event; this shall be corroborated by declarations, under oath, of the individuals of the crew of such as may have been saved, and the original document shall be delivered to the said captain to protect his rights.

If the declarations of the crew and passengers do not agree with the captain, judicial faith shall not be given to the document.

And in both cases, it is reserved to the parties interested to give proof to the contrary.

653. When the ordinary provisions of the vessel are consumed, the captain can, with the understanding of the rest of the officers, oblige those who may have provisions, on their own private avowal, on board, to deliver them out for the common consumption of all persons on board, paying them their value at the time of the departure from the last port, or the value in the first port where he may arrive.

654. The captain cannot load in the vessel any merchandise upon his own account, without the permission of the naviero, nor shall any one of the crew be permitted to do so, without the same consent.

655. Neither can a captain make any public or secret contract with the ship-

pers for his own private benefit; but everything which the vessel earns, in whatever manner, all must enter into the common fund of the participations in the earnings of the vessel.

656. The captain who navigates at common freight, or on shares, cannot, on his own account, engage in any other separate business; if he does so, the benefit which may result shall pertain to the other party's interest, and the losses shall fall to his particular prejudice.

657. A captain who, having agreed for a voyage, shall fail to fulfil his undertaking, whether from not commencing the voyage, or abandoning the vessel during the voyage, besides indemnifying the naviero and shippers for all the damages which may arise on the account of the failure, shall remain perpetually incapacitated from again being a captain of a vessel.

He shall only be excusable, if any physical or moral impediment happens to him, which prevents him from complying with his undertaking.

658. A captain is not permitted to cause himself to be substituted by another person in the discharge of his employment, without the consent of the naviero; and if he does so, he shall be responsible for all the acts of the substitute, and the naviero can discharge him and the person who he appointed, exacting the indemnifications to which he may have made himself responsible, according to the preceding article.

659. From every port where the captain may load the vessel, he ought to remit to the naviero an exact statement of the goods which have been shipped, and of the names and abodes of the shippers, the freights which may be earned, and the amounts taken on bottomry loans.

In case of not finding means to give this notice in the port where he may receive the cargo, he shall do it in the first port where he arrives in which there may be facilities to do it.

660. The captain shall also give punctual notice of his arrival to the naviero at the port of his destination by the first carrier, or any other more prompt opportunity, if any shall occur.

661. When, by any perils of the sea, the captain shall lose all hope of saving his vessel, and may think it necessary to abandon his ship, he shall hear the minds of the officers of the vessel, and it shall be as the majority shall decide: the captain having the casting vote.

Being able to save himself in a boat, he shall procure, to carry with him, the most precious articles of the cargo, collecting or saving, indispensably, the books of the ship always, when there is a probability of doing so.

If the goods saved are lost before arriving in port, no charge shall be made against him for them; proving in the first port, when he arrives, that the loss arose from fortuitous accidents and unavoidable causes.

662. The captain cannot take up money *a la gross*, or on bottomry, nor hypothecate the vessel for his private negotiations.

Being part owner of the hull and apparel of the ship, he can pledge his private portion, whenever he has not taken up beforehand anything on bottomry upon the whole of the vessel, nor any kind of pledging or hypothecation existing against her.

In the policy for the money, which a captain who is part owner of the vessel may take up in the manner above expressed, he shall state necessarily what is the portion belonging to him, upon which he founds the express hypothecation.

In case of contravening this article, the payment of the principal and costs shall be at his private charge, and the naviero may depose him from his employment.

663. The captain, as soon as the vessel is freighted, or hired, is bound to place her free in her hold and tonnage, fitted for navigation and receiving cargo within the time agreed upon with the freighter or lessee.

664. The vessel being freighted in whole, the captain cannot receive cargo from any other person, without the express consent of the freighter; and if he should do so, the latter may oblige the captain to discharge the new cargo, and may exact from him the damages which may have resulted to him.

665. The captain shall not allow the cargo to be placed on the deck of the vessel, unless the shippers, the naviero, and the officers of the vessel consent to

it; and it shall be sufficient, if any one of these parties resist it, to prevent its being done, although the others consent to it.

666. The obligations imposed on the naviero by articles 631 and 632, extends to the captains in the contracts which they may make concerning freights; which are:—

First. The naviero cannot contract for, nor admit more cargo than what corresponds to the capacity of the vessel, as mentioned in the registration; and if he should do so, he shall be responsible for the damages which may result to the shipper.

Second. If he should contract for more cargo than what the vessel ought to carry, he shall indemnify the shippers with whom he has failed to fulfil his contract for all the damages which may have accrued to them for his want of their fulfillment of his contract.

667. It is the duty of the captain to remain by his vessel, with the whole of his crew, while she is loading.

668. After a vessel is freighted for a particular port, the captain cannot neglect to receive the cargo and make the voyage agreed upon, unless sickness, pestilence, war, or robbery in the vessel itself, which may legitimately impede the commencement of the voyage, shall take place.

669. When, through violence a privateer or sea rover shall take goods from a vessel on the voyage, or shall take her cargo, or the captain shall be under the necessity of delivering up any goods, or cargo, he shall make a statement of the affair in the books of the vessel, and shall prove the fact in the first port where he shall thereafter arrive.

It is the duty of the captain to resist such delivery, or reduce it to the least possible quantity of goods so exacted, by all the means which prudence may allow.

670. A captain who encounters a storm, or considers that there is damage or average in the cargo, shall make his protest in the first port where he arrives within twenty-four hours afterwards, and shall ratify it within the same time as soon after as he arrives at the port of destination, proceeding afterwards to the proofs of the facts, and until this is finished, he shall not open the hatches of the vessel.

671. The captain cannot take up money on bottomry upon the cargo of the vessel; and, in case he does it, the contract shall be inefficacious, with respect to the cargo.

672. As soon as the captain arrives at his port of destination, and obtains the necessary permits from the Marine and Royal Custom-house, he shall deliver his cargo, without denunciation, to the respective consignees, and without delay, under his personal responsibility, and that of the vessel, her apparel and freights.

673. The increase and augmentation which a cargo may receive during the voyage shall belong to the owner of it.

674. When, on account of the absence of the consignee, or when no legitimate holder or bearer of the bills of lading to order shall present themselves, and the captain shall not know to whom he can legally make a delivery of the cargo, he shall, in such case, place it at the disposition of the Tribunal of Commerce, or, in want of such tribunal, at the disposition of the local judicial authority in the place, in order to provide what may be convenient for its deposit, preservation, and security.

675. The captain shall take a formal account of the goods which he delivers, with their marks, and numbers, and quantity, whether weighed or measured, and shall transfer the same to the cargo book of the vessel.

676. The captain is civilly responsible for all the damages which may happen to the vessel and the cargo, through unskillfulness, or want of care on his part. Should these damages proceed from his acting with fraud, besides such responsibility, he shall be prosecuted criminally, and suffer the penalties prescribed in the criminal laws.

COMMERCIAL CHRONICLE AND REVIEW.

GENERAL PROSPERITY AS COMPARED WITH 1840—ACCUMULATION OF CAPITAL—PERSPECTIVE RISE IN SECURITIES—SUPPLIES OF CALIFORNIA GOLD—IMPORT OF GOLD INTO THE UNITED STATES—IMPORTS INTO THE PORT OF NEW YORK, DISTINGUISHING DRY-GOODS—PROPORTION OF NATIONAL IMPORTS INTO NEW YORK—OPERATIONS OF THE ASSISTANT OF TREASURY—CUSTOM OF PORT OF NEW YORK—EXPORTS OF PORT OF NEW YORK—EXPORTS OF PROVISIONS FROM THE UNITED STATES TO GREAT BRITAIN—PROGRESS OF EXPORTS—EFFECT ON VALUE OF PRODUCTIONS—IMPORT OF FOOD INTO GREAT BRITAIN—BALANCE OF TRADE WITH GREAT BRITAIN IN 1840 AS COMPARED WITH 1836, ETC.

THE state of financial affairs in the American Union is exceedingly different now from what it was at the commencement of the decade which began with 1840. The ten years then just closed had been marked by an extraordinary speculation, the spirit of which had been lending and borrowing. Money in London had become unusually cheap, and every species of paper by which it could be obtained had been put afloat in all parts of the world, particularly in the United States; where, also, all descriptions of property changed hands on credit. The consumable portion was rapidly diminishing, while the apparent prosperity which attended expenditure tempted thousands to abandon productive industry for the more hazardous field of speculation. The result was inevitable, as manifest in the bankrupt law, the operation of which commenced the decade just closed by releasing 33,000 bankrupts from \$440,000,000 of debt due to over 1,000,000 creditors, and for which there were no assets whatever. From that time the exertions of enterprise have been directed to production. Lending concerns have not been increased, but mines and factories have drawn largely upon available capital, while nearly \$150,000,000 have been invested in means of communication, mostly railroads, all of which now pay handsome dividends, and have by their operation in promoting the interchange of commodities more than reproduced the capital they cost. At the same time the famine in Europe, operating with the modified commercial system of England in connection with the flow of emigration and political events, transferred an immense capital to this country, and we find instead of a general bankruptcy, suspended banks, deranged exchanges, scarcity of money, and the low credit of the Federal Government, which marked the assembling of the extra session of Congress in 1841, the reverse of all these—mercantile credit at home and abroad is sound, banks actively useful, exchanges low and uniform, money more abundant and cheaper than ever before for such a length of time, and Federal credit abroad better than ever. The accumulation of capital from internal resources in the country and the continued influx of it from abroad already prompt the question as to how far the present amount of floating securities will suffice to meet the demand for investment, which must certainly swell in magnitude during the next ten years. All the existing securities upon the market, as well railroad and canal stocks as banks and insurance companies, have an element of progressive value acting upon them through the increase of population and enhanced productions. The State and Federal stocks under existing legislative enactments will rapidly disappear. Those of the Federal Government are, as far as United States capital is concerned, being virtually paid off; that is, foreign capital is relieving American capital from "convoying" them. The amounts invested in railroads reproduce themselves many per cent by the action

of the works they bring into operation, and by so doing rather promote the demand for means of investment, than satisfy it. The prospect is, therefore, that the money value of all securities now upon this market, will, within ten years, range very much higher than now, by steady progression. Thus, taking the English debt at an average of £800,000,000, and it has been a little more than that since the war, the average price for five years ending 1820, was 70 per cent for consols, which make the stock capital £560,000,000. From that time, under manufacturing and commercial prosperity, capital accumulated, increasing the demand for investments, and the price of consols rose until they reached 105½ per cent in 1844. The average price of five years, ending with 1845, was 91 per cent, which would give a capital of £72,800,000, an increase of £168,000,000 accumulating in government stocks. Since 1845, £100,000,000 has been invested in railroads, affecting the investments in consols. In the United States, this process is now going on very rapidly, and the figure to which values may rise can be placed very high.

The arrivals of gold from California and elsewhere at the Philadelphia Mint, have been for eighteen months as follows:—

	1849. 12 months.	1850. 6 months.	Total, 18 months.
From California.....	\$5,481,439	\$10,200,000	\$15,681,439
Other places.....	285,653	991,210	1,276,864
Total.....	\$5,767,092	\$11,191,210	\$16,958,303

This, with the amount coined at New Orleans, and the other branches, makes over \$20,000,000; and probably with the amounts brought by the Philadelphia and Georgia, not less than \$25,000,000 have reached us in eighteen months. In the same time, \$12,500,000 were imported from abroad on custom-house books; and if we add the usual estimate for immigrants, the amount is \$50,000,000; an incredible sum, when we consider how little its presence has been appreciated. The abundance of money, and the large consumption of goods, are marked, and we cannot but suppose will become more distinct, under the enhanced supplies of gold now anticipated, together with the more active operations of the railroads. The business at New York for the past year may be distinguished thus:—

IMPORTS FROM PORT OF NEW YORK YEAR ENDING JUNE 30TH.

	Specie.	Free goods.	Dry goods.	Other dutiable.	Total.
1849	\$2,813,380	\$8,028,579	\$36,417,112	\$42,166,211	\$89,425,282
1850.....	10,502,115	7,890,878	46,342,271	49,016,954	113,752,618
Increase	\$7,689,735	.....	\$9,925,159	\$6,850,743	\$24,327,326
Decrease	.....	\$137,701	.....	.....	.....

The importation of dry goods, shows the largest proportionate increase. The importations at the port of New York are usually rather less than two-thirds of those for the whole Union. At this rate, we should have a figure of \$170,628,000 imports for the present year. The exports of this port are usually one-third of those for the Union. This would give \$133,500,000, which would show imports of \$37,000,000, as the profits of sales, and the earnings of freights on American account; and a portion of this excess of imports, say \$6,000,000, is in specie; while exchanges remain about par, showing an "even beam" at the close of the year; but we have a stock of cotton on this side of 308,490 bales, worth \$15,000,000, against 181,106 bales, \$5,400,000 last year. It has entered into

the calculations of some financiers in how far goods have been purchased in Lancashire on open credits; not as formerly, on the credit of the banking houses connected with America, but from the abundance and cheapness of money, enabling manufacturers themselves to extend credits directly to dealers here. This may have been practiced, to some extent, but not, we apprehend, so far as to jeopardise a sudden or extensive demand for exchange before the supplies of the new crop shall have begun to affect the market. We are to reflect, however, that we are a gold producing country, and must become accustomed to its export.

The operations of the assistant treasury have been quite large during the month, but the balance on hand has been considerably reduced. For several months, the returns show the following results:—

NEW YORK ASSISTANT TREASURY.

	On hand.	Receipts.	Interest.	Payments.	On hand.
Jan.	\$2,445,295	\$3,079,443	\$1,013,331	\$2,690,227	\$2,834,511
Feb.	2,834,511	2,172,311	54,986	1,104,272	3,902,550
March. ...	3,902,550	2,128,266	37,392	1,488,916	4,504,899
April. ...	4,504,899	2,296,293	.....	2,272,325	4,565,867
May.	4,565,867	2,382,758	.....	3,118,992	3,829,632
June. ...	3,829,632	1,559,134	.....	3,299,619	2,689,147
Total.	\$2,445,295	\$13,618,205	\$1,105,709	\$13,975,351	\$2,689,147

The receipts of the New York office, for the six months, have been over thirteen and a half millions of dollars, accruing mostly from the customs duties, and these, as compared with former years, have been as follows:—

CUSTOMS—PORT OF NEW YORK.

	1847.	1848.	1849.	1850.
January.	\$1,434,836	\$2,357,347	\$1,911,465	\$3,010,297
February.	1,496,716	2,416,497	2,070,547	2,028,694
March.	1,652,092	1,553,003	2,043,395	2,045,966
April.	2,109,404	1,686,506	1,497,445	2,242,442
May.	1,487,173	1,312,036	1,452,617	2,329,868
June.	1,460,017	1,143,497	1,347,898	1,481,217
Total.	\$9,640,238	\$10,468,856	\$10,324,267	\$13,138,484

This is probably the largest amount of customs ever received in New York for a corresponding period of time, and is equal to the average rate of customs for the whole Union in former years. The exports from the whole Union, the returns of which from abroad constitute the imports at New York, will doubtless in value this year exceed that of the last at that port. The value of domestic produce exported is quite large, having been for six months as follows:—

EXPORTS FROM PORT OF NEW YORK.

	Go'ds fr'm wareh'se.	Debentured.	Not debentured.	1850. U. States prod.	1849. U. States prod.
Jan.	\$275,225	\$33,546	\$60,836	\$1,968,735	\$2,109,903
Feb.	155,335	57,587	107,587	3,188,994	2,190,649
M'ch.	102,676	71,724	95,510	2,865,634	2,687,807
Ap'l.	122,163	77,243	299,595	3,146,251	2,655,819
May.	81,948	87,107	176,577	3,610,977	3,020,861
June.	185,737	64,822	243,821	3,791,207	3,317,740
Total.	\$923,074	\$392,029	\$1,013,926	\$18,571,696	\$15,982,779
Increase. ....	.....	.....	.....	\$2,588,917	.....

This excess arises mostly from the enhanced value of cotton exported. The quantities of produce, however, coming down from all sections is such as to keep

the rates of internal bills very low, and the quotations at this instant upon all sections of the Union are in favor of New York. In relation to farm produce, the export business has sprung up altogether in the last few years, and it is matter of high interest to the farming public that they should be well informed always of the nature of the existing demand for those articles. The following table shows the manner in which the provision trade has progressed in the last ten years:—

EXPORTS OF PROVISIONS FROM THE UNITED STATES.

	Beef. Bbls.	Butter. Lbs.	Cheese. Lbs.	Pork. Bbls.	Ham. Lbs.	Lard. Bbls.
1840....	19,631	1,177,639	723,217	66,281	1,643,897	7,418,847
1841....	56,537	3,785,983	1,748,471	133,290	2,796,517	10,597,654
1842....	48,581	2,055,133	2,456,607	180,032	2,518,841	20,102,397
1843....	37,812	3,408,144	3,440,144	80,310	2,632,067	24,534,217
1844....	106,174	3,251,952	7,343,145	161,629	3,886,976	25,746,355
1845....	101,538	3,587,489	7,941,187	161,609	2,719,360	20,060,993
1846....	149,223	3,436,660	8,675,390	190,422	3,006,630	21,843,164
1847....	111,979	4,214,433	15,637,600	206,190	17,921,471	37,611,161
1848....	103,719	2,751,086	12,913,305	218,269	33,551,034	49,629,539
1849....	103,286	3,406,242	17,433,682	253,486	56,060,822	37,446,761

From 1833 the quantities gradually diminished as prices rose under the paper inflation which culminated in 1836-7. The exports had in 1837 fallen off nearly 72 per cent. In 1838 they began to recover, and assisted by the modified English tariff of 1842 have now reached an extent greater than ever. In order to observe how much of this marked increase is owing to the extended English market, we annex a table of exports to Great Britain:—

EXPORTS OF UNITED STATES PRODUCE TO GREAT BRITAIN.

	1836.	1843. 9 months.	1849.
Oils, sperm.....galls.	203	322,030	565,624
Oil, whale.....	.....	67,259	576,902
Whalebone.....lbs.	.....	187,185	451,466
Naval stores.....bbls.	193,618	144,916	317,418
Ashes.....tons	198	354	693
Beef.....bbls.	.....	6,886	72,850
Tallow.....lbs.	.....	3,651,614	5,598,227
Butter.....	.....	1,059,775	548,557
Cheese.....	.....	2,313,643	16,007,402
Pork.....bbls.	.....	3,240	111,385
Hams.....lbs.	11,861	656,328	53,150,465
Lard.....	.....	4,569,404	21,388,265
Flour.....bbls.	161	19,436	953,815
Cotton.....lbs.	292,518,307	582,845,504	739,344,905
Tobacco, manufactured.....	82,418	337,951	911,526
Wheat.....bush.	.....	.....	1,072,680
Corn.....	.....	.....	5,077,220

This immense trade has grown up suddenly, and is now just beginning to assume regularity. The English markets are even yet scarcely understood by those whose business it is to prepare produce for sale there. But experience is now rapidly supplying that defect. The whole increase is owing almost entirely to the modifications of the English tariff, admitting these large supplies to British consumption. The extent to which the trade may grow, under judicious legislation, is almost limitless, and the salvation of our farming interests depends upon its encouragement. Low as have been the prices, what would they have been had the above large quantities been retained in the country? On the other hand, had

the export been doubled, the general level of the prices would have been raised to the extent of \$30,000,000 above their actual values. The year 1836 was one of immense speculation—that is to say a great consumption of foreign goods upon credit, but it appears there were no farm exports in payment. England wisely, by the acts of 1842–45–46 modified and removed prohibitions and duties to an extent which has suffered so large a demand as the above table shows for our western produce to spring up. The year 1849, it will be remembered, was not one of famine, but the large trade was the regular result of better acquaintance with the articles.

The mode of cutting and packing pork, as an instance, was by repeated experiment at last accommodated to the demand. The necessity of such adaptation was inculcated by the severe losses of 1840–4–5, since which time the sale in England has steadily progressed. In the shape of pork, hams, and lard, the market for swine in England has become very important. The market for cheese is undergoing a similar process, and with proper care in the preservation of the quality, an almost limitless sale may be found abroad.

The tables indicate a very prosperous business for all produce, and foreshadows that immense trade which must within a few years exist between the western vallies and the people of not only England, but of Western Europe. The tendency to import largely of food into Britain, so manifest from the progressive nature of the trade called into being by the policy adopted in 1842, must lead, within a very few years, to the most important results. As an indication of this progress, we compile, from official sources, the quantities of food imported into the United Kingdom:—

	1843.	1847.	1849.
Live animals .....No.	5,342	219,679	185,235
Grain.....bush.	25,379,192	78,384,096	77,837,432
Flour.....cwts.	1,146,063	9,119,212	3,534,437
Bacon.....	402	90,530	384,325
Beef.....	7,092	112,683	144,638
Pork.....	16,374	235,298	347,352
Butter.....	180,892	314,125	282,501
Cheese.....	180,829	354,802	397,648
Hams.....	5,101	17,203	12,282
Rice.....	252,412	1,560,402	975,316
Total cwt.....	1,789,163	11,804,755	6,078,502

Under the supposition that there are now 30,000,000 souls in the British Island, the weight of eight articles of food imported has been 19 lbs. and 2½ bushels grain per head, in a year of very low prices. Its procurement at comparatively low rate was a source of profit, rather than of loss, if we judge from the simultaneous abundance of money; and reciprocally in the United States the sale of such quantities of farm produce has been a means of wealth which has very perceptibly told, not only upon the avenues of trade, but upon the demand for goods and the abundance of money. In the above table we observe that in 1836 little or no farm produce went to England, yet in that year the importations of goods from that country were large. In 1849 the reverse has been the case: we may compare the trade as follows:—

Years.	Exports to Great Britain.		Total.	Imports from England.
	Cotton.	All other.		
1836	\$48,910,846	\$7,085,032	\$55,995,878	\$78,645,968
1849	47,444,899	29,183,395	76,628,294	61,154,538
Decrease	\$1,465,947	.....	.....	\$17,491,430
Increase .....	.....	\$22,078,863	\$20,632,416	.....

That is to say, the cost of exports to England in 1849 has been \$15,483,756, in addition to freights, and against an excess of import in 1835 of \$22,650,090. These large imports in 1836 were purchased on open credits with the great American houses, and sold and consumed on bank credits here. Now the West sends down large quantities of produce, which are sold to England in excess of our purchases—consequently she gets paid in cash and the trade remains eminently healthy. When croakers undertake to create panics about overtrading, nothing is more satisfactory than to look into the real state of affairs, and examine in how far the apparent prosperity is really an interchange of the products of industry, rather than merely speculative sales on doubtless credits.

COMMERCIAL STATISTICS.

IMPORT OF FOREIGN MERCHANDISE INTO THE UNITED STATES.

SUMMARY STATEMENT OF THE QUANTITY AND VALUE OF GOODS, WARES, AND MERCHANDISE IMPORTED INTO THE UNITED STATES FROM JULY 1, 1848, TO JUNE 30, 1849.

FREE OF DUTY.	Quantity.	Value.
Animals for breed	\$72,845
Bullion, gold.....	297,570
“ silver.....	154,688
Specie, gold.....	3,771,077
“ silver.....	2,427,905
Cabinets of coins, medals, &c., &c.....	331
Models of inventions, and improvements in the arts	29,012
Teas.....lbs.	16,319,789	4,071,789
Coffee.....	165,334,700	9,058,352
Copper, in plates suited to the sheathing of ships.....	1,044,755
“ ore.....	177,736
Cotton, unmanufactured.....	157,276	8,255
Adhesive felt, for sheathing vessels.....	11,215
Paintings and statuary of American artists.....	147,946
Specimens of natural history, &c.....	5,098
Sheathing metal.....	220,936
Platina, unmanufactured.....	10,285
Plaster, unground.....	71,597
Wearing apparel, &c.....	120,679
Personal effects of citizens dying abroad.....	8,154
Old junk.....	45,897
Oakum.....	5,072
Garden seeds, trees, shrubs, plants, &c.....	76,368
Produce of the United States brought back.....	369,463
Guano.....tons	21,243	102,274
Philosophical apparatus and instruments, &c.....	15,732
Books, maps, and charts.....	14,161
Paintings, drawings, etchings, and engravings.....	621
Other articles.....	37,852
Total.....	\$22,377,665

	PAYING DUTIES.	Quantity.	Value.
<i>Manufactures of wool—</i>			
Cloths and cassimeres			\$4,995,957
Merino shawls, of wool			1,196,376
Blankets			1,161,429
Hosiery, and articles on frames			718,794
Worsted stuff goods			4,070,185
Woolen and worsted yarn			113,463
“ “ articles embroidered, &c			13,910
Manufactures not specified			837,577
Flannels	yards	170,396	52,339
Baizes		122,485	51,518
<i>Carpeting—</i>			
Wilton, Saxony, and Ambusson		17,654	18,067
Brussels, Turkey, and treble ingrained		380,164	349,908
Venetian and other ingrained		144,558	96,433
Not specified			28,650
<i>Manufactures of cotton—</i>			
Printed, stained, or colored			10,286,894
White or uncolored			1,438,635
Tambored or embroidered			702,631
Velvets, wholly of cotton			99,220
Cotton and silk			14,076
Cords, gimps, and galloons			185,964
Hosiery, and articles made on frames			1,315,783
Twist, yarn, and thread			770,509
Hatters' plush, of silk and cotton			170
Manufactures of, not specified			940,959
<i>Manufactures of silk—</i>			
Piece goods			7,588,822
Hosiery, and articles made on frames			368,393
Sewing silk			551,840
Articles tambored or embroidered			1,045,216
Hats and bonnets			48,162
Manufactures not specified			4,053,871
Floss			18,297
Raw			366,238
Bolting cloths			34,928
Silk and worsted goods			2,452,289
Camlets of goats' hair or mohair			35,016
<i>Manufactures of flax—</i>			
Linens, bleached or unbleached			5,156,924
Hosiery, and articles made on frames			1,485
Articles tambored or embroidered			30,686
Manufactures not specified			718,147
<i>Manufactures of hemp—</i>			
Sheetings, brown and white			52,353
Ticklenburgs, osnaburgs, and burlaps			119,217
Articles not specified			101,053
Sail duck, Russia	pieces	10,202	74,101
“ Holland		519	5,566
“ Ravens		8,262	46,116
Cotton bagging	yards	1,453,248	121,368
<i>Clothing—</i>			
Ready made			87,283
Articles of wear			500,307
<i>Laces—</i>			
Thread and insertings			176,375
Cotton inserting, trimmings, laces, braids, &c			663,991
Floor cloth, patent, painted, &c		7,425	2,884
Oilcloth of all kinds		65,093	34,286
Hair cloth and hair seating			145,292
Lasting and mohair cloth, for shoes and buttons			103,677
Gunny cloth			140,472

PAYING DUTIES.		Quantity.	Value.
Matting, Chinese and other, of flags.....			\$92,100
<i>Hats, Caps, Bonnets, &c.—</i>			
Of Leghorn, straw, chip, or grass, &c.....			1,150,964
Of palm-leaf, rattan, willow, &c.....			18,977
<i>Manufactures of iron and steel—</i>			
Muskets and rifles.....No.	48		205
Fire-arms not specified.....			231,905
Side-arms.....			4,082
Drawing and cutting-knives.....			8,421
Hatchets, axes, and adzes.....			3,148
Socket-chisels.....			8,895
Steelyards and scale-beams.....			18,681
Vices.....			24,656
Sickles and reaping-hooks.....			1,909
Sythes.....			14,892
Wood-screws.....			515
Spades and shovels.....			3,168
Squares.....			2,557
Needles, sewing, darning, and other.....			167,664
Cast iron butt-hinges.....			18,012
Cutlery not specified.....			1,086,408
Other manufactures of, not specified.....			2,946,873
Sad irons, hatters' and tailors' irons.....lbs.	59,199		1,477
Bonnet-wire.....	469,279		22,888
Wire, not above No. 14.....	899,584		34,414
“ above No. 14.....	25,992		1,951
Tacks, &c., not above 16 oz. per M.....M.	140		61
“ above 16 oz. per M.....lbs.	46		28
Nails.....	1,147,977		68,294
Spikes.....	48,345		1,996
Chain-cables.....	9,450,124		277,289
Mill, cross-pit, and pit-saws.....No.	10,582		6,878
Anchors, and parts thereof.....lbs.	612,998		28,097
Anvils, and parts thereof.....	1,466,276		74,250
Smith's hammers and sledges.....	86,805		3,444
Castings, vessels of.....	471,861		15,883
“ all other.....	1,008,423		18,937
Round or square braziers' rods, from 3-16 to 10-16 inch diameter.....	1,323,912		24,563
Nail or spike rods, slit, rolled, or hammered.....	1,585,614		11,114
Band or scroll, as casement-rods, hammered.....	574,032		19,137
Hoop-iron.....	7,810,468		148,126
Sheet-iron.....	17,218,314		395,130
Pig-iron.....	2,112,649		1,405,613
Old and scrap.....	189,001		144,424
Bar, manufactured by rolling.....	3,469,142		6,060,068
“ manufactured otherwise.....	211,964		525,770
<i>Steel—</i>			
Cast, shear, and German.....	110,586		1,014,773
All other.....	23,214		212,365
<i>Copper, and manufactures of—</i>			
In pigs, bars, and old.....			988,683
Wire.....			857
Copper bottoms.....			11,792
Manufactures of, not specified.....			219,369
Rods and bolts.....lbs.	4,570		1,553
Nails and spikes.....	3,816		570
<i>Brass, and manufactures of—</i>			
In pigs, bars, and old.....			7,504
Wire.....			4,872
Sheet and rolled.....			8,105
Manufactures of, not specified.....			154,540
<i>Tin, and manufactures of—</i>			
In pigs and bars.....			575,762

PAYING DUTIES.		Quantity.	Value.
In plates and sheets.....			\$2,292,428
Foil.....			11,208
Manufactures of, not specified.....			23,042
<i>Lead, and manufactures of—</i>			
Pig, bar, sheet, and old.....	2,684,700		85,367
Shot.....	350		36
Manufactures of, not specified.....			854
<i>Peester—</i>			
Old.....			2,453
Manufactures of.....			1,503
<i>Manufactures of gold and silver—</i>			
Laces, galloons, tresses, tassels, &c.....			40,290
Epaulets and wings.....			566
Gold and silver leaf.....			263
Jewelry, real, or imitations of.....			281,335
Gems, diamonds, pearls, &c., set.....			3,242
“ “ “ otherwise.....			106,014
Manufactures of, not specified.....			29,043
Glaziers' diamonds.....			2,374
Clocks.....			51,543
Chronometers.....			13,046
Watches, and parts thereof.....			1,676,606
Metallic pens.....			74,050
Square wire, for umbrella stretchers.....			26,108
Pins, in packs and otherwise.....			8,184
<i>Buttons—</i>			
Metal.....			35,239
All other, and button-molds.....			365,937
<i>Glass—</i>			
Silvered and in frames.....			150,537
Paintings on glass, porcelain, and colored.....			14,488
Polished plate.....			282,101
Manufactures of, not specified.....			88,231
Cut.....			45,563
Plain.....			37,303
Watch crystals.....gross	2,024		6,646
Glasses or pebbles, for spectacles.....	1,607		4,236
Apothecaries' vials, N. × A., 16 ounces each.....	517		441
Bottles, not above two quarts.....	16,599		61,677
Demijohns.....No.	73,461		16,841
Window-glass, not above 8 by 10 inches square feet.....	150,501		2,946
“ “ 10 by 12 inches.....	3,131,715		112,176
“ “ above 10 by 12 inches.....	515,631		24,217
<i>Paper and manufactures of—</i>			
Antiquarian, imperial, super-royal, &c.....			278
Medium, cap, demy, and other writing.....			52,110
Folio and quarto-post.....			64,624
Bank and bank-note paper.....			33,858
Binders' boards, box, pressing, and paste-boards....			104
Copper-plate, printing, and drawing.....			6,165
Sheathing paper.....			3
Playing cards.....packs	56,844		7,572
Papier-mache, articles and wares of.....			31,710
Paper hangings.....			76,525
Paper boxes and fancy boxes.....			65,030
Paper and manufactures of, not specified.....			51,994
Blank books.....			5,800
<i>Books, printed—</i>			
In Hebrew.....			126
In Latin and Greek.....			2,925
In English.....			284,935
In other languages.....			109,951
Periodicals and illustrated newspapers.....			936
Periodicals and works in course of publication.....			1,943

	PAYING DUTIES.	Quantity.	Value.
<i>Leather—</i>			
Tanned, bend, and sole.....lbs.		4,593	\$807
Tanned and dressed upper leather.....		35,848	12,096
Skins, tanned and dressed.....dozs.		51,780	410,504
Skins, tanned, not dressed.....		1,916	11,858
<i>Manufactures of—</i>			
Skivers.....		11,258	55,903
Boots and bootees, for men and women.....pairs		2,948	9,613
Shoes and pumps, for men and women.....		12,023	9,659
Boots, bootees, and shoes, for children.....		1,470	4,825
Gloves, for men, women, and children.....dozs.		233,282	772,217
Manufactures of, not specified.....			173,143
<i>Wares—</i>			
China, porcelain, earthen, and stone.....			2,261,331
Plated or gilt.....			159,619
Japanned.....			62,269
Britannia.....			17,272
Silver or plated wire.....			5,440
<i>Saddlery—</i>			
Common, tinned, or japanned.....			67,749
Plated brass or polished steel.....			117,726
<i>Furs—</i>			
Undressed, on the skin.....			249,156
Hatters' furs, dressed or undressed, not on the skin.....			256,656
Dressed, on the skin.....			84,976
Hats, caps, muffs, and tippets.....			3,842
Manufactures of, not specified.....			6,842
<i>Manufactures of wood—</i>			
Cabinet and household furniture.....			52,195
Cedar, mahogany, rose, and satin.....			32,694
Other manufactures of.....			165,850
<i>Unmanufactured—</i>			
Cedar, grenadilla, mahogany, rose, and satin.....			324,620
Firewood and other, not specified.....			227,716
Dye-woods, in sticks.....			549,149
<i>Bark of the cork tree—</i>			
Corks.....lbs.		597,904	120,413
Unmanufactured.....			14,573
Other manufactures of.....			11
<i>Marble—</i>			
Manufactures of.....			23,883
Unmanufactured.....			110,963
Quicksilver.....			26,974
Brushes and brooms.....			146,063
Black lead pencils.....			32,187
Slates of all kinds.....			152,030
Raw hides and skins.....			3,507,300
<i>Manufactured articles—</i>			
Boots and bootees, of silk or satin.....pairs		114	100
Prunella, lastings, &c.....		7	4
Shoes and slippers, of silk or satin.....		469	305
Shoes and slippers, of India rubber.....		345,020	52,335
Grass-cloth.....			17,474
Gunny-bags.....			270,700
Umbrellas, parasols, &c., of silk.....			33,934
“ “ all other.....			1
<i>Manufactured articles—</i>			
Flaxseed or linseed.....bush.		211,442	273,084
Angora, Thibet, and other goats' hair or mohair..lbs.		267	105
Wool.....		17,869,022	1,177,347
<i>Wines, in casks—</i>			
Burgundy.....galls.		15,949	4,866
Madeira.....		193,971	105,302
Sherry and St. Lucar.....		170,794	128,510

PAYING DUTIES.		Quantity.	Value.
Port		711,268	\$272,700
Claret		1,912,701	263,886
Teneriffe and other Canary		65,214	22,643
Fayal and other Azores		12,656	5,108
Sicily and other Mediterranean		130,851	32,231
Austria and other of Germany		6,680	2,832
Red wines, not enumerated		994,458	221,177
White wines, not enumerated		971,895	210,139
<i>Wines, in bottles—</i>			
Burgundy	dozs.	1,608	8,184
Champagne		86,041	439,508
Madeira		97	759
Sherry		227	803
Port		299	1,281
Claret		56,694	68,636
All other		15,129	32,642
<i>Foreign distilled spirits—</i>			
Brandy	galls.	2,064,091	1,347,514
From grain		796,276	327,957
From other materials		542,492	145,784
Cordials		27,023	25,328
<i>Beer, ale, and porter—</i>			
In casks		25,366	16,110
In bottles		179,825	134,431
Vinegar		34,987	4,065
Molasses		23,796,806	2,778,174
<i>Oil and bone, of foreign fisheries—</i>			
Spermaceti		95	58
Whale and other fish		39,669	12,864
Whalebone	lbs.	27	20
<i>Oil—</i>			
Olive, in casks	galls.	91,600	55,787
Castor		3,066	3,584
Linseed		1,163,647	487,920
Rapeseed		136	59
Spirits of turpentine		2	1
Tea	lbs.	156,084	29,863
Coffee		51,948	2,091
Cocoa		2,078,267	123,946
Chocolate		12,258	1,453
<i>Sugar—</i>			
Brown		253,815,485	7,793,616
White, clayed or powdered		5,103,741	221,206
Loaf and other refined		400,015	34,078
Candy		4,885	461
Syrup of sugar-cane		2,458	378
<i>Fruits—</i>			
Almonds		2,241,149	152,979
Currants		2,945,533	99,576
Prunes and plums		706,990	48,719
Figs		1,362,623	62,410
Dates		412,183	7,112
Raisins		16,608,979	622,905
Nuts		2,716,670	71,331
<i>Spices—</i>			
Mace		37,054	22,090
Nutmegs		409,275	219,349
Cinnamon		23,906	8,593
Cloves		670,337	56,594
Pepper, black		2,101,320	65,253
" red		518,400	11,556
Pimento		2,626,520	191,197
Cassia		956,514	74,198
Ginger, in root		2,353,209	73,198

	PAYING DUTIES.	Quantity.	Value.
<i>Camphor—</i>			
Crude	lbs.	519,332	\$39,817
Refined		46	16
<i>Candles—</i>			
Wax and spermaceti		4,679	1,245
Tallow		307	31
Cheese		250,466	22,895
Soap, other than perfumed		1,223,081	74,370
Tallow		37,806	1,825
Starch		42,436	1,629
Pearl barley		18,976	598
Butter		412,598	29,804
Lard		249	14
Beef and pork		25,184	1,515
Hams and other bacon		23,188	2,268
Bristles		221,045	88,265
<i>Saltpeter—</i>			
Crude		12,358,312	436,250
Refined or partly		633,947	25,815
Indigo		1,373,062	805,863
Woad, or pastel		56,370	3,136
Ivory and bone-black		13,629	1,481
Opium		92,068	190,316
Glue		151,081	12,543
Gunpowder		115	43
Alum		122,572	2,004
Copperas		1,593,179	10,131
Sulphate of quinine	ounces	3,216	7,069
<i>Vitriol—</i>			
Blue, or Roman	lbs.	237,252	9,628
Oil of		734	61
Chloride of lime, or bleaching powder		2,655,692	78,062
Soda ash		27,928,402	637,965
Sulphate of barytes		799,433	5,988
<i>Tobacco—</i>			
Unmanufactured		3,057,732	276,674
Snuff		943	358
Cigars		106,982	1,439,765
Manufactured, other than snuff and cigars		26,099	3,509
<i>Paints—</i>			
Dry ocher		3,144,300	33,725
Ocher, in oil		289,857	4,131
Red and white lead		318,781	19,703
Whiting and Paris white		472,945	2,755
Litharge		2,960	249
Sugar of lead		15,272	858
<i>Cordage—</i>			
Tarred, and cables		1,887,482	129,120
Untarred		252,271	17,290
Twine		242,871	34,378
Seines		500	182
Hemp, unmanufactured	ewt.	86,892	491,633
Manilla, sun, and other hemp of India		36,806	196,634
Jute, Sisal grass, coir, &c		76,838	356,406
Codilla, or tow of hemp or flax		2,429	156,498
Flax, unmanufactured		19,380	127,859
Rags of all kinds	lbs.	14,941,236	524,755
Salt	bush.	11,622,163	1,438,981
Coal	tons	198,213	409,282
<i>Breadstuffs—</i>			
Wheat	bush.	27,838	20,382
Barley		4,185	1,641
Rye		296	162

PAYING DUTIES.		Quantity.	Value.
Oats	bush.	161,002	\$27,067
Wheat flour	cwt.	34,344	76,272
Oat meal		626	1,315
Potatoes	bush.	71,558	20,602
<i>Fish—</i>			
Dried or smoked	cwt.	22,520	43,709
Salmon	bbls.	8,244	81,200
Mackerel		138,505	465,286
Herring and shad		13,961	29,761
All other		5,363	13,097
<i>Articles not enumerated—</i>			
At 5 per cent.			1,792,012
10 "			1,030,131
15 "			286,078
20 "			2,893,652
25 "			155,090
30 "			1,641,737
40 "			141,741
Total			\$125,479,774
Free of duty			22,377,665
Grand total			\$147,857,439

PRODUCT AND CONSUMPTION OF SUGAR THROUGHOUT THE WORLD.

FREEMAN HUNT, Esq., *New York.*

TRINIDAD DE CUBA, *April 25th, 1850.*

SIR:—I take the liberty of enclosing a statement of the product and consumption of sugar throughout the world. By publishing this it may lead to further investigation of the same subject, although this is believed to be a correct summary.

And I would take this opportunity of expressing to you with how much satisfaction your Magazine is perused by me, as it is certainly the best work of the kind published.

Respectfully your obedient servants,

EATON, SAFFORD & FOX.

PRODUCT OF SUGAR.

Spanish possessions	lbs.	671,866,800
English possessions		800,240,142
French possessions, including beet sugar		137,333,350
Holland possessions		120,000,000
United States		200,000,000
Brazil		260,000,000
Danish and Swedish possessions		20,000,000
German and Belgian possessions, including beet sugar		30,000,000
Mexico, Guatamala and Colombia, Venezuela, Peru, Egypt, & China.		182,300,538
Total pounds produced		2,421,740,830

CONSUMPTION OF SUGAR.

	Population.	Lbs. to each person.	Pounds.
Spain and its possessions	17,830,172	12	213,962,064
England, Scotland, and Ireland	28,944,843	21	607,841,703
English possessions in America, including the Antillas	2,371,763	12	28,461,156
English possessions in India	138,474,656	1	138,474,656
Germany	38,715,600	5	193,578,000
Holland and its possessions	7,294,318	15	109,414,770
France and its possessions	36,000,000	8	288,000,000
Belgium	4,242,600	9	38,183,400
United States	20,000,000	18	360,000,000
Mexico and Guatamala	9,000,000	6	54,000,000
Brazil	5,000,000	16	80,000,000
The rest of South America	9,273,640	6	55,641,840

	Population.	Lbs. to each person.	Pounds.
Portugal and its possessions.....	5,162,000	4	20,648,000
Italy	22,577,459	2	45,154,918
Switzerland	2,188,009	2	4,376,018
Denmark and possessions.....	2,232,965	6	13,397,790
Sweden and Norway.....	4,304,599	3	12,913,797
Russia	62,500,000	1½	93,750,000
Turkey and Egypt.....	20,000,000	1	20,000,000
China.....	227,000,000	3-16	42,562,500
The rest of the world	44,166,976	1-32	1,380,218
Population of the world of those who consume sugar.....	707,279,600		2,421,740,830

COMMERCIAL REGULATIONS.

TARIFF OF BRITISH GUIANA FOR 1850-51.

1. Be it enacted by His Excellency, the Governor of British Guiana, with the advice and consent of the Court of Policy thereof, and of the Financial Representatives of the inhabitants of the said colony, in Combined Court assembled, that there shall be raised, levied, collected, and paid, the several duties as the same are respectively set forth in figures in the following table herein contained, upon all goods, wares, and merchandise, which shall be imported into British Guiana, or taken out of bond for consumption in the colony, on and after the first day of July, one thousand eight hundred and fifty, and until the first day of July, one thousand eight hundred and fifty-one, and which are enumerated in said table, to wit:—

TABLE OF DUTIES.

Bread, pilot, navy biscuit and crackers, and all other kinds, per 100lbs., English.....	\$0 50
Beef, pickled, per barrel of 200lbs., English.....	2 75
Beef, dried or smoked, per pound, English.....	0 02
Bacon, per pound, English.....	0 02
Butter, per pound, English.....	0 03
Corn, grain of every kind and description, beans, peas, and pulse of every kind and description, whether whole or split, per bushel, English.....	0 15
Corn meal and oat meal, per 100 lbs., English.....	0 50
Candles, tallow, per lb., English.....	0 1½
Candles, spermaceti, wax, adamantine, hydraulic press, or any kind of composition other than simple tallow, per lb., English.....	0 05
Cigars, per 1,000.....	2 00
Cocoa, per lb., English.....	0 01
Chocolate, per lb., English.....	0 04
Coffee, per cwt.....	2 50
Clapboards, per 1,000.....	1 50
Cheese, per lb., English.....	0 01½
Cattle, say bulls, per head.....	4 00
Oxen, per head.....	1 50
Flour, wheat, per barrel, 196 lbs., English.....	1 75
Flour, rye, " " " ".....	0 50
Fish, dried, per 112 lbs., English.....	0 50
Fish, pickled, say—	
Salmon per barrel, of 200 lbs., English.....	2 00
Mackerel " " " ".....	1 00
And all other sorts " " " ".....	0 75
Fish, smoked, per lb., English.....	0 02
Hams, and all other dried or smoked meats, per lb., English.....	0 02
Horses, per head.....	7 00
Lard, per lb., English.....	0 01

Lumber of all kinds, per 1,000 feet, board measure.....	2 00
Liquors, spirituous liqueurs, bitters and cordials, proof 24, or weaker, per gal.	1 00
For every degree of proof stronger than 24, of every gallon of spirituous liquors, liqueurs, bitters, and cordials, in addition to the duty of one dollar per gal.	0 05
Liquor, malt, in wood, per hogshead.....	1 50
Liquor, malt, in bottles, each bottle containing not more than a quart, per doz.	0 08
Liquor, malt, in bottles, each bottle containing not more than a pint, per doz.	0 04
Matches, for every gross box of, each box not to contain more than 100 matches, or if imported in any other kind of packages than boxes, then for every 14,000 matches.....	0 50
Mules, per head.....	5 00
Molasses, per gallon.....	0 07½
Oats, per bushel.....	0 05
Oil, spermaceti, per gallon.....	0 25
Oils, other descriptions, per gallon.....	0 12½
Pork, pickled, per barrel, 200 lbs., English.....	2 75
Pepper, per lb., English.....	0 05
Pitch, per barrel.....	0 50
Potatoes, per bushel, of 64 lbs., English.....	0 08
Plantains, per bunch.....	0 10
Rice, per 100 lbs., English.....	0 50
Rosin, per barrel.....	0 50
Soap, per lb., English.....	0 01½
Sugar, per cwt.....	4 00
Staves and heading, white oak, per 1,000.....	2 00
Staves of every other description, per 1,000.....	1 50
Shingles of all kinds, per 1,000.....	0 50
Sago, per lb., English.....	0 05
Tobacco, in packages not less than 800 lbs., per lb., English.....	0 10
Tobacco, in packages less than 800 lbs., manufactured or otherwise, per lb., English.....	0 15
Tea, per lb., English.....	0 15
Turpentine, crude, per barrel.....	0 50
Turpentine, spirits, per gallon.....	0 15
Tongues, pickled, dried, or smoked, per lb., English.....	0 02
Tapioca, per lb., English.....	0 05
Tar, per barrel.....	0 50
Wine, bottled, of all descriptions, per dozen quarts.....	1 00
Wine, bottled, of all descriptions, per dozen pints.....	0 50
Wine, in wood, of all kinds, per gallon.....	0 45

And at those rates upon any greater or lesser quantity of such goods, wares and merchandise respectively, and moreover upon all other goods, wares and merchandise, (not hereinbefore enumerated,) which shall be so imported as aforesaid, an *ad valorem* duty of 4 per cent, or four dollars upon every one hundred dollars of the value of such other goods, wares, and merchandise.

2. And be it enacted that coin, bullion, diamonds, cows, calves, heifers, sheep, hogs, fruit, vegetables, (except as before enumerated,) cotton, wool, ice, fresh fish, fresh meat, turtle, poultry, manures, bitumen, or mineral pitch, the produce of the island of Trinidad, printed books, machinery, (the making, manufacturing, or improvement of which has been invented or patented within three years next preceding the taking effect of these presents,) provisions and stores of every description, imported or supplied for the use of Her Majesty's land and sea forces, and all wines and spirituous liquors imported by and for the use of the governor, shall be exempt from duties.

3. And be it enacted, that the *ad valorem* duties leviable and payable on all goods under and by virtue of ordinance No. 3, of the year 1841, entitled "An Ordinance to levy a Duty upon all goods imported into British Guiana," shall, during the continuance in force of this ordinance, and no longer, cease to be leviable and payable.

4. And be it enacted, that for the purpose of encouraging the trade of the colony with other countries, parties exporting goods shall be entitled to the drawback of such duties as they may have paid under this or any other ordinance, on the importation of the same; and that the mode, manner, and time of claiming said drawback shall be subject to the provisions of ordinance No. 18, of the year 1849, and of every other ordinance that may be hereafter passed by the governor of British Guiana, with the advice and consent of the Court of Policy thereof, regulating drawbacks; provided,

always, that no drawback of duty shall be allowed on any wine or spirituous liquors, nor upon any cigars, nor upon any tobacco, manufactured or otherwise, which shall or may be exported from the colony at any time during the continuance of this ordinance.

5. And be it enacted, that there shall be raised, levied, and collected, a tonnage duty of forty cents per ton upon vessels above seventy tons, and of ten cents per ton upon all other vessels, and an additional duty of seven dollars on every merchant vessel of seventy tons and upwards entering at the custom-house of either of the ports of British Guiana.

OF EXPORT DUTIES ON OPORTO WINE.

The Portuguese Government has determined to stop the evasion of export duties by sending wine to England via America. The following is a copy of the decree, published in the Government *Gazette* of Lisbon:—

"It being necessary that every possible means be adopted to put a stop to the fraudulent commerce of wines of the second quality, cleared out for ports out of Europe, but which are afterwards sent to the European markets, to the great injury of the lawful trade and the public Treasury, it is hereby decreed:—

"ART. 1. That no wines, upon which the consumption duty has been paid, either in the city of Oporto, or in Villa Nova, shall be allowed to be moved from one side of the river to the other, nor without the city barriers.

"ART. 2. That any infringement of this article shall subject the offender to a penalty of six mil-reis to twelve mil-reis per pipe. (£1 8s. to £2 16s.)

"ART. 3. That no bond will be required, on the exportation of wine and jeropiga of the first quality, to ports out of Europe.

"ART. 4. That the bond to be given on the exportation of wines of the second quality can only be cancelled on presentation of a certificate of the landing of the wine, and of the payment of the consumption duties at the port to which it had been originally shipped, or at any other port out of Europe; that at any port or ports where a drawback on the re-exportation of wine is allowed, the bond cannot be cancelled unless a certificate be presented showing that such wines had not been re-exported to any port or ports in Europe, within four months after they had been cleared for consumption."

The decree then ordains that the Portuguese consuls are to trace all the wines which are re-exported to Europe, even after the certificates may have been passed, and report the result of their inquiries to the Secretary of State for Foreign Affairs, and to the director of the Oporto Custom-house; that the Portuguese Consul-General in London, and all the consular agents in any ports of Europe where port wines coming from any port out of Europe may be landed, shall report the same to their Government, on which the director of the Custom-house at Oporto may suspend the cancelling of the bond; that any shipper who does not present the certificates as required by article 4, or who may be proved to have been guilty of the fraud of re-exportation, as stated in article 4, shall pay a multa (fine) of double the amount of the exportation duties on wines of the first quality (i. e. about £7 sterling) per pipe.

On Monday, the 3d of June, 1850, the decree was carried into effect, (notwithstanding that by law fifteen days' grace ought to have been allowed,) and caused general consternation among the mercantile community. All business was immediately at a stand-still, and shipments to America suspended, it being altogether impossible to find the sureties exacted by article 4.

OF THE DECIMAL COINAGE IN ENGLAND.

The Liverpool Chronicle says, "that before the subject was formerly entered upon in the British Parliament, there was an understanding that no new unit would be admitted in England's circulating coins. The simple proposition was, whether the pound should in future be continued as at present, divided into 960 parts, (or farthings, now called,) or extending to 1,000 parts, so as to allow the means of intermediate decimal subdivisions. On this principle alone was consent given to coin the *first tenth* already issued—the *florin*. This, no doubt, will eventually be followed by its *half* and *quarter*, to supersede the present shilling and sixpence, leaving, in fact, neither the gold nor silver coins altered, except in name. The only change in reality will occur in the copper money, which must be decimally, instead of duodecimally, divided.

OF DUTIES ON SUGAR AND MOLASSES.

TREASURY DEPARTMENT, July 5, 1850.

The Supreme Court of the United States, at the last session, has decided, in the cases of *Marriott vs. Brune et al.*, and the *United States vs. Southmayd et al.*, that, in the estimate of duties charged under the laws on importations of sugar and molasses, allowance should be made for loss or deficiency occurring on the voyage of importation, the weight or quantity arriving in the United States consequently governing in the assessment of such duties; that the words "invoice value" in the proviso to the 8th section of the act of 30th of July, 1846, were to be regarded as meaning "invoice price;" and if that price be fixed too low to the foreign country from which the articles are exported, "or lower than it should be on the quantity likely to be saved and to arrive here, it is the duty of the appraisers to raise the price."

In compliance with the rule thus finally established by the highest judicial tribunal of the country, it becomes the duty of this Department to direct, that on all future importations of sugar and molasses the duties are to be levied upon the actual quantity arriving in the United States.

The regulations heretofore prescribed, so far as they relate to weighing and gauging for the purpose of verifying invoices, and to the payment of expenses, are still to be observed.

Upon the application in writing of the importer of either of the articles above mentioned, with a view to ascertain the loss or deficiency occurring during the voyage of importation, the same is to be weighed or gauged by the appropriate officers, at the expense of such importer; and on the weight or quantity thus ascertained as actually brought into the United States, and on the value or price thereof as fixed by the appraisers, the duties are to be assessed.

From representations made to the Department, it would appear that, in consequence of the difficulty of ascertaining with accuracy the true market value or wholesale price of foreign merchandise, or from other causes, great irregularity is found to exist in appraisements, and that, notwithstanding the instructions heretofore issued, cases of manifest fraud by undervaluation continue to occur. It becomes, therefore, necessary to repeat, that the Department will expect the exercise of the utmost vigilance on the part of the appraisers in the discharge of their important and responsible duties as they relate to all importations coming under their notice; in the appraisement of the articles more especially the subject of these instructions, their attention being particularly directed to the explicit declaration of the Supreme Court, that, if the price of the article as appearing on the invoice has been fixed too low in the foreign country from which it is imported, "or lower than it should be on the quantity likely to be saved and to arrive here, it is the duty of the appraisers to raise the price."

It has been represented that in many cases the appraisers have felt restrained in the discharge of their duties by the result of frequent appeals from their decisions. In order, therefore, to secure a just, faithful, and impartial appraisal of all goods, wares, and merchandise imported into the United States, the following rules and regulations are established.

1. That the period of the exportation of merchandise is the time at which the value of price of any article is to be fixed by the appraisers.
2. That in ordinary cases, the date of the Bill of Lading may be regarded as the "period of exportation."
3. That in all important cases the appraisers will pursue the course indicated in the 17th section of the act of 30th August, 1842, and the collector will preserve the evidence and papers in each such case, to be transmitted to the Department when called for.
4. That in all cases of appeal from the decision of the appraisers, the result of such appeal, with all the papers connected therewith, and the views of the collector thereon, are to be forwarded to the Department immediately.
5. That in order that the Department may be informed, as far as may be, of the appraised value of the principal articles imported, and with a view to secure the greatest practical uniformity, a monthly report shall be forwarded according to the form herewith, (A.)
6. That where merchandise shall be entered at ports where there are no appraisers appointed, the foreign value is to be ascertained, in the manner before prescribed, by the revenue officers to whom is committed, by the laws, the estimating and collection of duties in such cases.

W. M. MEREDITH, Secretary of the Treasury.

OF THE IMPORT OF FOREIGN COAL IN STEAMERS.

The Philadelphia *North American* states that it has for some time past been the practice of the masters of the foreign steamers, upon their arrival at the ports of the United States, and especially New York, to enter large quantities of coal in the bonded warehouses, and to reship it, subsequently, at their own convenience, claiming the usual debenture. The matter, it will be seen, has been brought before the Secretary of the Treasury, who gives the following explanation and instructions on the subject:—

TREASURY DEPARTMENT, June 17, 1850.

SIR:—In reply to an inquiry made at this Department by a citizen of Philadelphia, I have to state that foreign coal intended for consumption in sea steamers, and placed in bonded warehouses, under the provisions of the warehousing law, can be withdrawn from warehouse without payment or duties *only to be exported and landed abroad*, and its consumption on board the vessel is *not regarded* as a *landing* abroad within the meaning of the law.

There is another provision of law, however, on this subject, to which it may be well to refer.

By an act of Congress of the 7th July, 1838, it is declared that it shall be lawful for the captain or master of any steamboat or vessel propelled by steam, arriving at any port of the United States, to retain all the coal such boat or vessel may have on board at the time of her arrival, and that he may proceed with said coal to a foreign port without being required to land the same in the United States, or to pay any duty thereon.

Very respectfully, your obedient servant,

W. M. MEREDITH, *Secretary of the Treasury.*

POSTAL ARRANGEMENTS BETWEEN FRANCE AND ENGLAND.

It appears from the London papers that the Marquis of Clanricarde has been successful in his visit to Paris. He has entered into a new postal treaty with the French government, for the reduction of the postage on letters between the United Kingdom and France from 10d. to 6d., and an assimilation of the weight from under a quarter of an ounce to not exceeding half an ounce, as on inland letters in England, to the British colonies, the United States, Portugal, Spain, the Mediterranean, Egypt, India, Hong Kong, and China, (by the monthly mails via Southampton,) Holland, Hamburg, &c. This important arrangement, it is stated, is not confined to letters between the two countries, but it is to be extended to all letters passing through France from Great Britain to other parts of the continent. The high postage on letters to the Mediterranean, Egypt, Aden, Ceylon, India, &c., 1s. 10d. per quarter of an ounce, and on newspapers 3d., by the fortnightly overland closed mails through France via Marseilles, has also been the subject of his lordship's consideration, and a reduction in the tariff, or postal tax, is likewise to be extended to them.

PASSPORT REGULATIONS TO FRANCE AND BELGIUM.

A correspondent of the *Liverpool Chronicle*, recently returned from the French and Belgian metropolises, furnishes the following instructions, which may be useful to any of our friends about to pay a visit to the continent of Europe:—

“It is necessary, in the first place, to appear personally at the French Consulate Office, in King William-street, London, between the hours of 12 and 4; there you are charged 5s. for your passport. On arriving at the frontier, that is exchanged for a provincial one to take you to Paris, for which you are charged two francs. You then apply at the Prefect of Police, where you are asked where you are lodging. You then get your original passport, which was given you in London. When you desire to quit Paris for England, you must go to the English Ambassador, and afterwards again to the Prefect of Police; then to the *Ministre d'Etrangers*, where you will be charged ten francs. This last requirement few comply with. If you wish to go to Belgium, you must have it *visé* by the Belgian Minister, before the Prefect of Police, for which you are charged five francs.”

TARIFF OF FREIGHT ON RAILWAYS IN GEORGIA.

The Central Railroad extends from Savannah to Macon, a distance of 190½ miles. This road, in connection with the Macon and Western Road, from Macon to Atlanta, 101 miles, and the Western and Atlanta Railroad, from Atlanta to Dalton, 100 miles, forms a continuous line of 391½ miles in length from Savannah to Dalton.

We give below the rates of freight on each of these roads, as officially published by the different companies, as follows:—

RATES OF FREIGHT FOR MERCHANDISE GENERALLY, FROM SAVANNAH TO MACON.

<i>Measurement Goods.</i> —Boxes of hats, bonnets, furniture, shoes, saddlery, dry goods, and other measurement goods,	per cubic foot	\$0 13
Crockery-ware, in crates, boxes or hhds.,	per cubic foot	0 10
<i>Goods by Weight—First Class.</i> —Boxes of glass, paints, drugs, and confectionary,	per 100 lbs.	0 50
<i>Second Class.</i> —Sugar, coffee, rope, butter, cheese, lard, tobacco, leather, hides, copper, tin, sheet and hoop iron, hard and hollow ware, rice, boxes soap and candles, bagging, and other heavy articles, not enumerated below, per 100 lbs.		0 45
<i>Third Class.</i> —Flour, bacon, liquors, pork, beef, fish, tallow and beeswax.		0 40
<i>Fourth Class.</i> —Mill-gearing, pig and bar iron, grind and millstones, nails, spike, and coal,	100 lbs.	0 30
Barrels of beets, bread, crackers, potatoes, fruit, oysters, onions, ice, and all light barrels,	each	0 75
Oil, Molasses, per hhd., (smaller casks in proportion).		6 00
Salt, per sack, not exceeding four bushels.		0 50

RATES OF FREIGHT FOR MERCHANDISE GENERALLY FROM MACON TO ATLANTA.

<i>First Class.</i> —Boxes of hats, boots, shoes, bonnets, furniture, and such other articles as are clearly analogous to those named,	cubic foot	0 09
<i>Second Class.</i> —Boxes and bales of dry goods, saddlery, glass, paints, oils, drugs, feathers, and confectionary.	100 lbs.	0 44
<i>Third Class.</i> —Sugar, coffee, liquor, bagging, rope, butter, cheese, tobacco, leather, hides in bales, cotton yarns, copper, tin, bar and sheet iron, hollow-ware, castings, hardware, and other heavy articles, not enumerated.	100 lbs.	0 30
<i>Fourth Class.</i> —Flour, rice, bacon, pork, beef, fish, lard, tallow, beeswax, bales of rags, ginseng, green and dried fruit, mill-gearing, pig iron, mill and grind stones.	100 lbs.	0 25

RATES OF FREIGHT FOR MERCHANDISE GENERALLY FROM ATLANTA TO DALTON.

<i>First Class.</i> —Boxes of hats, bonnets, and furniture.	cubic foot	0 08
<i>Second Class.</i> —Boxes and bales of dry goods, shoes, saddlery, glass, paints, oils, drugs, and confectionary.	100 lbs.	0 40
<i>Third Class.</i> —Georgia domestics, sugar, coffee, liquor, bagging, rope, butter, cheese, tobacco, leather, feathers, hides, cotton yarns, tin, sheet iron, hollow-ware, crockery, castings, hardware, marble (dressed,) &c.	100 lbs.	0 25
<i>Fourth Class.</i> —Flour, in sacks, rice, pork, beef, fish, lard, tallow, bacon in casks, boxes or sacks, beeswax, bales of rags, ginseng, fruit, bar iron, marble (undressed,) mill and grind stones, mill-gearing.	100 lbs.	0 15

FOREIGN MERCHANDISE IN TRANSIT.

The memorials addressed to the Lords of the Treasury by the Liverpool Chamber of Commerce, and the mercantile associations of Hull, Southampton, and other ports in Great Britain, on the subject of the trade in foreign merchandise passing through this country, have at length induced the authorities of the customs to issue orders to the seaports, directing their officials to abandon the vexatious system recently in existence; and experimentally French or other foreign goods may henceforth be transhipped from the Havre steamships, Camilla, &c., to the Halifax mail-steamers at Liverpool, without being opened and examined, or subjected to the usual warehousing regulations. Detailed particulars of the contents of each package transhipped also will no longer be required from the importers and exporters. The right of examination is not to be given up, either at the port of import or the port of embarkation; but except in

cases of suspicion, it will be a mere *pro forma* examination, causing little trouble or delay; and, in such cases as the transmission of goods from Hull to Liverpool, the transit will be made by rail, in covered vans, the customs having a key at either end. An officer will not be sent with the van. It may, therefore, be anticipated that an endless amount of trouble and labor, both to the custom-house authorities and the shipping agents of the port, will be saved. The matter has been under the consideration of the Board of Customs for the last four months, and the manner in which it has been decided is one of the most important concessions ever made by that board to the wishes and interests of the mercantile community.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

THE RECENT COUNTERFEIT GOLD COINS.

We are indebted to a little volume entitled "New Varieties of Gold and Silver Coins and Bullion," by Jacob R. Eckfeldt and William E. Du Bois, Assayers of the Mint of the United States, for the subjoined statement of recent counterfeit coins:—

The great majority of counterfeits, new or old, deserve neither to be admired nor feared; and the fact of their obtaining any circulation proves folly on the one party, as much as roguery upon the other. With this wholesale judgment, we dismiss a multitude of awkward Mexican birds, laughable heads of Liberty, type-metal casts, and villainous compounds of German silver; all of which are too much kept in countenance by the lingering presence, in our circulation, of the ugly and worn-out coin of Spanish monarchs. There are two or three varieties, however, recently brought to our notice, which deserve a more respectful attention; and these are counterfeits of gold coin only.

1. First may be mentioned an imitation of the well-known doubloon of Bogota, in New Granada; very well executed as to appearance, but still more respectable on account of the liberal proportion of the right metal. The specimen tried here,* of the date 1843, contained 653 thousandths of gold, the remainder being nearly all silver; and the weight being 416 grains, or only a half grain below the average of the true coin: its value was \$11 70. The value of the genuine being (irrespective of silver) about \$15 61, the amount of profit and loss is apparent. The operators needed some advice, which an honest person would not like to give. The piece was detected by its wanting the true color, which, in such an alloy, no art of pickling can impart. Those who deal in patriot doubloons have to beware of pieces looking too pale, or too much like fine gold. In this case the grand test of *weight* was fallacious.

2. A much more important counterfeit, or class of counterfeits, to us, is the imitation of our gold coin, lately brought to light; and which is as interesting to the man of science as it is dangerous to the commercial dealer. The varieties include the eagle, half-eagle, and quarter-eagle; there is not much danger of a false gold dollar, of that manufacture, for reasons which will be obvious in the examination.

These various counterfeits began to make their appearance in 1847, although some of them bear earlier dates. They are of so perfect execution that strong apprehension was at first entertained of the surreptitious procurement of genuine dies, notwithstanding all precaution in that matter. However, upon a minute inspection, the impression, although entirely "brought up," is not so sharp and decided as in the genuine coin; and from that circumstance they have exteriorly a family-character, by which a practiced eye may perhaps single them out. The details of impression correspond to those of the genuine to the last microscopic particular. The most skillful and deliberate artist in the world could not take up the engraver and make such a fac-simile; their dies must have been transferred from our coin by some mechanical process, concerning which very little is known, and the less the better.

The coins have rather a dull sound in ringing, but not as if flawed: although they are actually each in three distinct pieces of metal. Some few of them, where the weight is kept up, are thicker than the genuine, and necessarily so; but generally the half-eagles run, as in the good pieces, from 55 to 60 thousandths of an inch within the

* At the United States Mint.

raised rim. The diameter is sometimes rather too great. The composition is as follows:—A thin planchet of silver (of Spanish standard, as we found by assay,) is prepared so nearly of the right diameter that the subsequent overlaying of the gold plate at the edge will make it exact. Two other planchets, of gold, whose quality will be stated directly, are also prepared; one of them is of the right diameter of the projected coin, the other is about a quarter of an inch larger in diameter. Here are the three pieces which make up the coin. The two gold plates are then soldered upon the silver, the projecting rim of the larger disk of gold is bent up to meet the smaller, and to constitute the edge of the coin, and then the whole is finished by a blow in a coining-press. The suggestion that the coin may have been perfected in an electrotype battery is disproved by several considerations, especially by the conclusive one, that the effects of the *blow* are visible upon the silver planchet when the gold is lifted off; and the process of *sawing out* a good coin, so as to make use of its two faces to cover a piece of silver, could not have been employed in this case, because the edge of the coin actually appertains to one of the gold surfaces; and beside, the gold is sometimes of a higher fineness than our standard.*

The eagle, of which we have had but one sample, was not particularly noted, as it came after some others of the lower denominations.

Of the half-eagle counterfeits we have had the dates of 1844, 1845, and 1847. Of the quarter-eagle only the date of 1843 has been shown, and this had the mint-mark O, of the Branch at New Orleans.

The half-eagle of 1844 weighed 129 grains, just the right weight; the golden part weighed $84\frac{1}{2}$ grains, and was 915 thousandths (about British standard) fine; value of the gold, \$3 30. The silver weighed 44 grains, was 897 thousandths fine, and worth 10 cents; whole value of the piece, \$3 40. Another piece, 1845, was 10 grains light; another of the same date, of which only a part was furnished, gave the assay of $902\frac{1}{2}$ thousandths for the gold on the head side, and $901\frac{1}{2}$ on the eagle side; both higher than our limit, but very near it. Two other pieces, 1847, were each about 13 grains light; specific gravity of one of them, 14.1. (That of the true coin is 17.2 to 17.5.)

Of the quarter-eagle no less than five were offered in a single deposit for recoinage; they were severally from one to nine grains light. One piece, however, from another source, was a little over weight; the specific gravity, 12.83; fineness of the gold, 915; value of the whole piece about \$1 25.

It only remains to inquire how these counterfeits are to be detected and avoided. First, it may be said, that to lay down any rules which would protect the careless and indifferent is out of the question. Any man who can afford to take a half or quarter-eagle from any but an undoubted source, without *some* attention, can at any rate afford to be cheated out of half its value. And yet the best test we can propose is altogether an inconvenient one, to any but a bank, broker, or shopkeeper. That test is *the weight*. In every case except one which has come under our notice the balance would have settled all doubts. An error of a grain, in an unworn piece, would be conclusive; even worn pieces of our gold coinage are never deficient, on that account, more than one grain and a half. If the counterfeit should happen to be of right weight, then its too great *thickness* would be apparent to a careful examiner.

As the balance is not a very portable or ready apparatus, several instruments have been contrived expressly for the purpose of trying gold coins. We know of none more ready and effectual than one lately invented by Mr. W. M. Snider, machinist, in the employ of the United States Mint. Its value is attested by Mr. Parry, clerk in the office of the Assistant Treasurer of the United States at Philadelphia, who has one in constant use. Its merits consist in enabling the experimenter to decide by a single move, as to the weight, diameter, and thickness, of any of the coins in our series; in being so carefully adjusted as to detect any known counterfeit by one or other of those measurements; and in a general simplicity of arrangement, which obviates the liability to get out of order.

On the whole, it is difficult to say how far the appearance of this class of counterfeits should alarm the public, and make them shy of a gold currency. It is certainly the most dangerous imitation that has come to our knowledge. Yet when it is considered that in each counterfeit of the half-eagle there is and must be from three to

* This counterfeit is knowingly accounted for in a late newspaper paragraph. The writer says:—"The dies, under the present rule (at the United States Mint) are all pressed; hence, the ease with which they can be counterfeited by any die-sinker. In England and France the most eminent men in that branch are selected to coin dies, and such is the sharpness and perfection of their dies that counterfeits are almost an impossibility." It was from the mints of England and France that we borrowed the improvement of transferring dies.

three and a half dollars' worth of precious metal; that the manufacture must require a good deal of machinery and consummate skill, both artistic and mechanical; that the investment of a considerable capital is requisite, as also a wide organization for pushing the issues quietly into circulation, it may be hoped that prudent and competent persons will find it better worth their while to pursue a more honest and honorable calling. The public have an additional security, in respect to gold coins, that they are constantly passing through the various treasuries of government, the banks, and the brokers' offices; by whose vigilance that currency is kept quite or nearly pure.

Since the above was written we have seen counterfeit half-eagles of Dahlonga Mint (D.) of brass gilt, pretty well executed, but very light; date, 1843. Also a quarter-eagle, 1846, no mint mark, of copper and silver, heavily gilt; well-looking, but weighing 48 grains instead of 64½.

CONDITION OF THE NEW ORLEANS BANKS.

We give below, from the official statement of the Board of Control of Louisiana, a statement of the condition of the Banks of New Orleans, on the 22d of June, 1850.

	MOVEMENT OF THE BANKS.				TOTAL MOVEMENT AND DEAD WEIGHT.	
	Cash liabilities.		Cash assets.		Liabilities.	Assets
	Circulation.	Total.	Specie.	Total.	Exc. of capital.	
	<i>Doll.</i>	<i>Doll.</i>	<i>Doll.</i>	<i>Doll.</i>	<i>Doll.</i>	<i>Doll.</i>
<i>Specie paying</i>						
Louisiana Bank.....	1,111,837	3,567,506	1,510,519	4,961,010	3,567,506	13 8,534,391 11
Canal Bank.....	1,422,730	2,780,201	912,544	3,606,223	2,780,241	21 7,273,883 94
Louisiana State Bank.....	2,011,865	5,274,727	1,847,932	5,438,498	5,274,727	15 7,554,540 88
Mechanics & Traders.....	934,353	2,690,571	1,072,710	3,658,903	2,690,571	46 4,715,407 34
Union Bank.....	25,835	43,811	58,954	1,237,659	155,507	99 5,945,657 48
<i>Non-specie paying.</i>						
Citizens' Bank.....	11,086	11,916	15,653	317,110	7,038,248	14 6,677,925 43
Consolidated.....	13,056	13,928	21,909	54,156	1,690,182	08 1,404,373 07
	5,560,765	14,382,660	5,440,241	19,273,560	23,196,945	56 42,106,179 25

CONDITION OF THE BANKS IN THE UNITED STATES.

The Washington correspondent of the *Evening Post* furnishes the following digest of a report on the condition of the Banks of the Union made to Congress:—

COMPARATIVE VIEW OF THE CONDITION OF THE BANKS IN THE UNITED STATES.—JANUARY

	1848.	1849.	1850.
Number of banks and branches.....	751	782	829
Capital paid in.....	\$204,833,175	\$207,309,361	\$217,317,211
RESOURCES.			
Loans and discounts.....	344,476,582	332,333,195	364,204,078
Stocks.....	26,498,054	23,571,575	20,006,759
Real estate.....	20,530,955	17,491,809	20,582,166
Other investments.....	8,229,682	7,965,463	11,949,548
Due by other banks.....	38,904,525	33,258,407	41,631,855
Notes of other banks.....	16,427,716	12,708,016	16,303,239
Specie Funds.....	10,409,822	8,680,483	11,003,245
Specie.....	46,369,765	43,619,308	45,379,845
LIABILITIES.			
Circulation.....	128,506,091	114,742,415	131,306,526
Deposits.....	103,226,177	91,178,623	100,536,595
Due to other banks.....	39,414,371	30,005,366	36,717,451
Other liabilities.....	5,501,401	6,706,357	8,835,359
Total of current credits, i. e., circulation and deposits.....	231,732,268	205,922,038	210,953,121
Total of immediate liabilities, i. e., circulations, deposits, and sums due to other banks.....	271,146,639	236,017,404	277,670,572
Total of immediate means, i. e., specie, specie funds, notes of other banks, and sums due by other banks ...	112,191,828	98,236,274	114,917,778
Excess of immediate liabilities above immediate means.....	158,954,811	137,781,130	162,752,794

SPECIE IN THE BANKS, CIRCULATION AND DEPOSITS.

	Specie.	Circulation.	Deposits.	Total of current credits.
1834....		\$94,839,570	\$75,666,986	\$170,503,556
1835....	\$43,937,625	100,602,405	85,034,365	131,773,860
1836....	40,019,594	140,301,038	115,104,420	276,495,478
1837....	37,915,340	149,135,190	127,397,185	276,533,075
1838....	35,184,112	116,138,910	84,691,184	200,830,694
1839....	45,132,673	135,170,995	90,240,146	225,411,141
1840....	33,165,155	106,986,572	75,696,857	182,665,439
1841....	34,818,913	107,290,214	64,890,101	172,180,315
1842....	28,440,423	83,734,011	62,498,870	146,142,881
1843....	33,515,806	58,563,603	56,163,623	114,732,231
1844....	49,898,269	75,167,646	84,550,785	159,718,431
1845....	44,241,242	89,608,711	83,020,646	177,629,357
1846....	42,012,095	105,552,427	97,918,070	202,465,497
1847....	35,132,516	105,519,766	91,792,533	197,312,299
1848....	46,369,765	128,596,091	108,226,177	281,732,263
1849....	43,619,363	114,743,415	91,178,623	205,922,033
1850....	45,379,345	131,366,526	109,586,595	240,953,121

In May, 1837, the banks suspended specie payments. In May, 1838, the New York banks resumed specie payments, and the other banks attempted to follow their example, so that by January, 1839, there was what was called a general resumption of specie payment, though in many parts of the Union this was merely nominal.

In October, 1839, the banks of Philadelphia again suspended specie payments, and were imitated by the banks of the South and West.

Specie payments were not fairly resumed by the banks of Philadelphia till March, 1842. The banks of the South and West imitated their example: but in September, 1842, there was a tremendous bank convulsion at New Orleans, the effects of which were felt throughout the country. The consequence was, that by the 1st of June, 1843, the current credits of the banks were reduced to a very small amount. They continued small till May, 1843, when an expansion began, which was at first very gradual.

The great increase in the amount of specie and bank credits in 1848 over 1847, was in consequence of the demand for our breadstuffs in Europe.

In January last, the circulation of the banks was greater than it had been in any previous years, excepting 1834, 1837 and 1839; and the year 1839 may be left out of the comparison, as in the returns for that year are included many banks which did not pay specie.

In January, 1850, the banks were more expanded than they were in January, 1848.

The small amount in which the specie in the vaults of the banks varies, when compared with the amount of their circulation and deposits, is not unworthy of observation.

The greatest amount of specie in the banks was in 1844, when it was \$49,898,269. The smallest was in 1842, when it was \$28,440,423. Difference, \$21,457,846.

The circulation was lowest in 1843, when it was \$58,563,603; and highest in 1837, when it was \$149,185,190. Difference, \$90,621,582.

The deposits were lowest in 1843, when they were \$56,163,623; and highest in 1837, when they were \$127,397,185. Difference, \$71,228,562.

The current credits were greatest in 1837, when they were \$276,583,075; smallest in 1843, when they were \$114,732,231. Difference, \$161,850,844.

THE BANK OF THE STATE OF SOUTH CAROLINA.

We give below an extract from an article prepared by R. Moorman, Esq., originally published in the *Palmetto-State Banner* and the *Newberry Sentinel*. The table compiled by that gentleman exhibits the condition of the institution in each year, from 1814 to 1849 inclusive.

The bank was chartered in December, 1812, but having to procure a house, and every other outfit necessary to banking, and being delayed by the existence of war at that time, it did not commence operations till the fall of 1813. Its capital, according to the act of incorporation, was to consist of certain funds in the treasury and certain stocks, &c., that had to be reduced to cash. And, in consequence of the scattered and confused condition of these funds, but little was done before the 1st of October, 1813.

By which time, and to the 1st of October, 1814, various sums, forming an aggregate amount of capital of \$179,223 46, was received by the bank, and upon which it realized nearly 25 per cent gross, but having every expense, preparatory to commencing business, to defray out of that profit, it had less than 2 per cent as net profit, or \$3,325 21. It will be proper to re-state that year's business in the table here presented. The 1st October will be regarded as the end of each fiscal year:—

Years.	Capital.	Net profit.	Rate of Interest.
1814.....	\$179,223 46	\$3,825 81	2 per cent.
1815.....	297,353 28	48,900 71	nearly 16½ "
1816.....	391,890 39	93,022 69	over 16 "
1817.....	583,926 35	76,507 91	over 13 "
1818.....	887,872 59	105,838 07	nearly 12 "
1819.....	1,124,543 37	107,593 35	over 9½ "
1820.....	1,196,220 65	100,287 37	8½ "
1821.....	1,196,220 65	86,525 38	about 7½ "
1822.....	1,196,220 65	120,072 18	over 10 "
1823.....	1,196,220 65	113,207 61	nearly 9½ "
1824.....	1,196,220 65	116,350 58	nearly 9½ "
1825.....	1,196,220 65	115,042 96	over 9½ "
1826.....	1,196,220 65	70,500 00	nearly 6 "
1827.....	1,196,220 65	75,000 00	over 6½ "
1828.....	1,176,269 56	113,802 95	over 9½ "
1829.....	1,156,318 48	112,000 00	nearly 9½ "
1830.....	1,156,318 48	112,182 04	nearly 9½ "
1831.....	1,156,318 48	120,000 00	10½ "
1832.....	1,156,318 48	120,000 00	10½ "
1833.....	1,156,318 48	120,000 00	10½ "
1834.....	1,156,318 48	105,233 45	nearly 9½ "
1835.....	1,156,318 48	120,000 00	10½ "
1836.....	1,156,318 48	135,000 00	over 11½ "
1837.....	2,157,731 38	201,225 37	over 9½ "
1838.....	2,275,789 19	196,530 84	over 8½ "
1839.....	3,103,179 27	210,000 90	nearly 6½ "
1840.....	3,356,318 48	153,869 44	nearly 4½ "
1841.....	3,356,318 48	212,870 93	nearly 6½ "
1842.....	3,356,318 48	210,769 42	over 6½ "
1843.....	3,356,318 48	226,732 17	over 6½ "
1844.....	2,966,944 43	211,415 23	over 7½ "
1845.....	2,933,611 10	220,000 00	7½ "
1846.....	2,933,611 10	200,056 35	7 "
1847.....	2,933,611 10	283,287 64	over 9½ "
1848.....	2,906,944 43	208,527 65	over 7 "
1849.....	2,906,944 43	205,056 60	over 7 "

"The bank has been in operation for thirty-six years, and has realized upon the fund furnished her by the State, to be used as capital, nearly 9 per cent per annum, and an aggregate net profit of \$5,000,739 60."

UNITED STATES TREASURY NOTES OUTSTANDING JULY 1, 1850.

TREASURY DEPARTMENT, REGISTER'S OFFICE, July 1, 1850.

Amount outstanding of the several issues prior to 22d July, 1846, as per records of this office.....	140,339 31
Amount outstanding of the issue of 22d July, 1846, as per records of this office.....	31,450 00
Amount outstanding of the issue of 28th January, 1847, as per records of this office	211,250 00
Total	383,039 31
Deduct cancelled notes in the hands of the accounting officers, under all acts prior to 22d July, 1846.....	150 00
	<hr/> \$382,889 31

TRAINING BANK CLERKS.

In training clerks for intellectual offices, it is advisable not to give them too many instructions with regard to minute details. They should be taught to think for themselves. A man's talents are never brought out until he is thrown, to some extent, upon his own resources. If, in every difficulty, he has only to run to his principal, and then implicitly obey the directions he may receive, he will never acquire that aptitude of perception, and that promptness of decision, and that firmness of purpose, which are essentially necessary to those who hold important and responsible offices. Young men who are backward in this respect should be entrusted at first with some inferior matters, with permission to act according to their discretion. If they act rightly, they should be commended; if otherwise, they should not be censured, but instructed. A fear of incurring censure, a dread of responsibility, has a very depressing effect upon the exercise of the mental faculties. A certain degree of independent feeling is essential to the full development of the intellectual character. It should be the object of a banker to encourage this feeling in his superior officers. Those bankers who extend their commands to the minutest details of the office, exacting the most rigid obedience in matters the most trivial, harshly censuring their clerks when they do wrong, and never commending them when they do right, may themselves be clever men, but they do not go the way to get clever assistants. At the same time they exhaust their own physical and mental powers by attending to matters which could be managed equally by men of inferior talent.—*J. W. Gilbert's "Practical Treatise on Banking."*

CONDITION OF THE NEW YORK CITY BANKS.

CONDENSED STATEMENT OF THE LEADING FEATURES OF THE NEW YORK CITY BANKS FOR THE SECOND QUARTER, ENDING JUNE 29TH, 1850.

	Capital.	Loans & disc'ts.	Specie.	Circulation.	Deposits.
Merchants' Bank.....	\$1,490,000	\$3,881,700	\$1,276,504	\$289,730	\$3,237,689
Union Bank.....	1,000,000	2,751,672	612,161	358,015	1,657,731
Bank of New York.....	1,000,000	2,394,512	1,374,974	430,298	2,451,582
Mechanics' Bank.....	1,440,000	3,790,756	1,000,101	511,322	2,174,056
Bank of America.....	2,001,200	4,551,837	1,340,424	176,266	2,302,213
Manhattan Bank.....	2,050,000	3,487,602	704,532	230,796	2,044,596
Bank of State of New York.	2,000,000	4,307,051	747,119	391,103	2,051,891
Bank of Commerce.....	4,220,480	6,686,533	895,394	18,335	2,105,918
National Bank.....	750,000	1,701,370	107,031	113,903	953,621
Phoenix Bank.....	1,200,000	2,984,213	527,049	241,468	1,920,281
City Bank*.....	720,000	1,691,853	220,543	158,207	1,141,028
Leather Manufacturers' Bank	600,000	1,665,024	203,138	176,693	1,078,828
Fulton Bank.....	600,000	1,951,527	214,862	205,438	1,017,390
Chemical Bank.....	300,000	1,237,187	75,415	251,660	917,562
North River Bank.....	655,000	1,235,919	121,095	346,206	885,973
Tradesmen's Bank.....	400,000	1,025,030	71,223	257,596	730,068
Butchers and Drovers' Bank.	500,000	1,467,906	90,030	285,770	1,020,364
Seventh Ward Bank.....	500,000	1,132,442	122,156	229,917	671,422
Broadway Bank.....	500,000	846,443	75,894	210,829	564,001
Ocean Bank.....	750,000	999,589	85,394	93,937	448,890
Dry Dock Bank.....	200,000	163,955	17,296	59,131	51,235
Mechanics' Banking Associ'n.	632,000	961,484	142,264	276,653	740,939
Merchants' Exchange Bank..	1,235,900	2,693,142	147,008	76,026	1,444,589
Greenwich Bank.....	200,000	513,945	20,138	176,960	327,400
Bowery Bank.....	356,650	868,245	52,185	178,054	672,686
Mechanics & Traders' Bank.	200,000	578,883	46,783	199,493	387,991
Mercantile Bank.....	300,000	442,979	31,335	36,263	365,146
American Exchange Bank..	1,494,200	3,865,239	531,644	238,799	2,425,989
June 29, 1850.....	27,294,530	59,878,038	10,753,692	5,919,368	35,861,139
March 30, 1850.....	26,740,345	56,430,647	6,861,501	6,725,688	32,067,937
Dec. 29, 1849—26 banks..	25,439,990	53,360,050	7,169,019	6,013,349	28,868,488

* Returns, 30th of March.

	Due to banks.	Cash assets.	Cash liab'l's.	Profits.	Last divid'd.
Merchants' Bank.....	\$2,446,995	\$2,456,024	\$5,989,036	\$219,572	\$94,500
Union Bank.....	967,194	1,467,191	2,988,605	318,651	50,000
Bank of New York.....	525,908	2,094,909	3,407,188	188,293	50,000
Mechanics' Bank.....	1,366,917	1,864,748	4,059,185	286,798	72,000
Bank of America.....	2,092,690	2,192,029	4,579,185	372,788	70,042
Manhattan Bank.....	450,683	1,428,024	2,726,073	.....	71,750
Bank of State of New York	1,701,926	1,857,630	3,932,426	250,387	80,000
Bank of Commerce.....	1,952,243	1,921,616	4,079,751	432,897	138,953
National Bank.....	162,390	372,029	1,231,816	128,780	30,000
Phoenix Bank.....	960,358	1,328,169	3,192,107	118,768	72,000
City Bank.....	201,410	.....	.....	.....	36,000
Leather Manufacturers' Bank	350,761	594,361	1,607,321	102,725	24,000
Fulton Bank.....	745,054	703,024	1,969,664	98,466	30,000
Chemical Bank.....	41,023	517,048	1,210,246	293,157	18,000
North River Bank.....	193,526	818,920	1,425,855	52,356	.....
Tradesmen's Bank.....	27,187	480,342	1,014,857	.....	25,000
Butchers & Drovers' Bank..	23,167	419,239	1,334,136	155,485	25,000
Seventh Ward Bank.....	56,830	331,962	958,803	76,932	20,000
Broadway Bank....	52,283	499,062	828,351	18,424	20,000
Ocean Bank.....	52,860	348,835	595,687	45,051	.....
Dry Dock Bank.....	11	146,074	113,877	6,289	.....
Mechanics' Banking Associ'n.	94,094	698,818	1,115,256	20,759	25,280
Merchants' Exchange Bank..	591,463	935,231	2,368,354	105,548	49,359
Greenwich Bank.....	31,878	224,308	536,238	.....	10,000
Bowery Bank.....	16,331	348,328	869,695	26,875	14,266
Merchants & Traders' Bank.	84,487	218,288	671,971	57,241	10,000
Mercantile Bank.....	63,306	329,139	464,715	13,441	.....
American Exchange Bank..	2,185,245	2,042,204	4,852,021	296,027	57,770
June 29, 1850.....	17,438,220	26,637,552	58,173,019		
March 30, 1850.....	12,160,097				
Dec. 29, 1849—26 banks..	12,658,838				

September 22, 1849, capital, \$25,068,700; loans and discounts, \$51,366,563; specie, \$8,022,246; circulation, \$5,990,100; deposits, \$28,484,228; due banks, \$12,322,279.

From the above tables it will be seen that our banks were never in a more sound or prosperous condition. The most important feature in the returns is the increase in specie since the 30th March last—\$3,892,191. There has also been a corresponding increase in loans and discounts of \$3,447,391; deposits, \$3,793,202; due to banks, \$5,278,123; making the available means larger by \$12,963,516 than they were on the 30th March.

INCOME AND EXPENDITURE OF THE BRITISH GOVERNMENT.

An account of the public income and expenditure in each year, from 1822 to 1849, has been printed by order of the House of Commons. In 1822 the national income was £59,823,724, which is higher than it has been since. Last year it was £57,578,785. The lowest sum to which it descended was in 1835, when it only reached £50,408,579. The expenditure in 1822 was £55,079,316. Last year it was £55,480,759. The lowest amount was in 1835, when it was £48,787,638.

MEETING OF SPANISH BOND-HOLDERS IN LONDON.

At a meeting of the holders of Spanish bonds in London, at which a letter was read from the Duke of Valencia on the subject of overdue bonds, the following resolution was passed:—

"That the committee be authorized to treat with the Spanish Government on the basis of preserving the capital intact; namely, receiving £100 stock for the £100 bond and £50 stock for the ten years' dividend due on the 1st of November, 1850; and on account of the political and financial difficulties with which Spain has had hitherto to contend, to accept of a present modified dividend, increasing in such ratio as may be agreed upon."

LAW OF OHIO RESTRAINING BANKS FROM USURY.

We publish below a correct copy of an act passed at the last session of the General Assembly of Ohio, (March 19th, 1850,) restricting banks from taking usury, and also regulating, in a measure, the discount on purchase of notes or bills of exchange drawn on any place without that State:—

AN ACT TO RESTRAIN BANKS FROM TAKING USURY.

SEC. 1. *Be it enacted by the General Assembly of the State of Ohio*, That the fourth section of an act entitled "An Act in Relation to the State Bank of Ohio, and other Banking Companies," passed February 24, 1848, be, and the same is hereby repealed, and the sixty-first section of an act entitled "An Act to Incorporate the State Bank of Ohio, and other Banking Companies," passed February 24, 1845, is hereby re-enacted as far as the same may have been repealed by the enacting of the said fourth section above recited.

SEC. 2. Whenever any person or persons shall have paid to a banking institution of this State a sum of money for the loan or forbearance of which said banking institution shall have charged, received, reserved, or taken illegal interest, and such person or persons may omit or neglect to bring suit therefor within six months from the time of such payment, it shall be lawful, and it is hereby made the duty of the prosecuting attorney of the county in which such banking institution is located, to institute suit against such banking institution in an action of debt, in the name of the State of Ohio, and prosecute the same to final recovery for the amount of the debt or demand on which such illegal interest shall have been charged, reserved, or taken as aforesaid, and all moneys so recovered shall be paid over for the benefit of common schools of the county in which such bank is located, provided that the prosecuting attorney shall be entitled to charge and retain a commission of twenty per centum on the first thousand dollars, and five per centum on the excess over one thousand dollars of all moneys so by him collected and paid over as aforesaid, and provided such suit shall be commenced within eighteen months from the payment of such principal sum.

SEC. 3. It shall not be lawful for any banking institution in this State to charge, reserve, receive, or take more than six per centum in advance on the discount or purchase of any note, bill of exchange, or evidence of debt payable at any place within the State of Ohio, nor to charge, receive, reserve, or take, under any pretext whatever, on the discount or purchase of any note, bill of exchange, or evidence of a debt payable at a place without this State any per centage or sum greater than six per cent interest in advance, and the actual cost to such bank of converting the proceeds of such note or bill of exchange into available funds at par, when the current rate of exchange is not in favor of the place of payment, provided that such banking institution may charge and receive on the discount or purchase of notes, bills of exchange, or certificates of deposits, *bona fide*, drawn upon or payable at a place within the State other than the place of such discount or purchase, a reasonable sum for the collection thereof, not however exceeding one-fourth of one per centum thereon.

SEC. 4. It shall not be lawful for any banking institution in this State in the discount or purchase of notes or bills of exchange on time drawn on any place without the State, and while the current rate of exchange is in favor of such place and against the place where such bank is located, to charge, reserve, receive, or take any per centage or sum by way of discount or interest, which, when added to the current premium of exchange in favor of such place of payment, at the date of such discount or purchase, shall produce to said bank a net profit of more than at the rate of twelve per centum per annum on the money so paid or loaned by such bank, and when the current premium of exchange as aforesaid shall be equal to or exceed the rate of twelve per centum per annum, it shall be unlawful for such bank to charge, reserve, or receive any discount or interest on such note or bill of exchange.

SEC. 5. The discount or purchase by any banking institution in this State of any note or bill of exchange on time or other evidence of debt on time, payable at a place without the State, when the officer or agent of such bank knows or has reason to believe that the parties to such paper will not be prepared or do not intend to pay the same at the place of payment, or when any device is resorted to in order to secure to said bank a greater profit than it could realize from the discount or purchase of such paper if made payable at its own county, shall be deemed and held usurious and unlawful within the meaning of this act, provided that nothing contained in the third and fourth sections of this act shall in any way impair or effect any right conferred upon any bank heretofore incorporated or organized.

STATISTICS OF BRITISH SAVINGS BANKS.

It appears by a Parliamentary paper, recently printed at the instance of Mr. Hume, that the total number of depositors in savings banks, during the year 1847, was 1,095,554, and that the amount of deposits, including interest, was £30,207,180. In 1848 the depositors fell off to 1,055,881, and the deposits to \$28,114,136; but in 1849 the number and amount both showed an increase, the number being 1,087,854, and the amount of deposits £28,537,100. Of the latter sum, £26,671,903 was lodged by private individuals, £612,376 by charitable institutions, and £1,252,731 by friendly societies. The total number of annuities granted through the medium of savings banks in Great Britain and Ireland from the 26th of March, 1834, to the 5th of January, 1850, inclusive, was 5,575. The amount of immediate annuities granted was £108,837 5s. 6d., for which the annuitants paid £1,149,056. Of deferred annuities there were 108 granted, for which £17,332 was paid; and of deferred annuities by annual payments, 1,273, granting £25,523,017, and on account of which £59,934 have been paid.

NAUTICAL INTELLIGENCE.

GREAT CIRCLE SAILING.

We published under this head in the *Merchants' Magazine* for June, 1850, (vol. xxii. page 672,) an account of Captain Godfrey's unprecedented short passage. We now subjoin an extract of a letter of a nautical correspondent of a metropolitan contemporary, relative to "the great circle" sailing, which will, we presume, be read with interest by intelligent navigators:—

"Having navigated the India and China seas, and those seas applicable to circular sailing, I consider it my duty to caution those who might be led to pursue the same course as mentioned in your paper, in making a passage to Australia in high south latitude, knowing it is fraught with much danger. In December, 1841, I sailed from England for New Zealand, and made the land of the latter in less than 100 days. I adopted the plan of sailing on a small circle, varying in latitude from 46° to 48° south. On the 10th of March, in latitude 45° 30' south, and on the meridian of Cape Leewin, we fell in with immense blocks of ice, approaching to the size of small islands, and measuring from angles taken with a quadrant upward of 200 feet above the level of the sea. We were amongst these for seven days. We also passed several pieces level with the water's edge, the wind during the time being generally from the north, with hazy weather, which precluded a distant view on the horizon, and rendered the passage extremely dangerous. I think the commanders of emigrant ships should consider, and not risk the lives of so many persons for the sake of a quicker passage."

PORT OF AVEIRO, IN PORTUGAL.

The following intelligence has been received from the Department of State, respecting an alteration made at the entrance to the port of Aveiro:—

The two buoys which marked the channel of the bar of the port of Aveiro, in Portugal, are to be removed. A tower is already constructed on the said bar, to hoist signals, and be a mark to navigators who seek that port. The said tower is whitewashed, constructed on the foot of the bar, 22½ palms diameter at its base, its vertex 103 palms above the highest water-mark. It is situated at about 900 fathoms to the eastward of the bank of the bar; one of the two buoys to be removed lying to the northward of the channel, the other to the southward, at a distance between them of 756 fathoms, and of the signal tower, the first 614 fathoms, and the latter 576 fathoms.

ENTRANCES TO THE THAMES.

A nun buoy, of large size, painted black, and surmounted by a staff and ball, has been placed in the position of the black buoy, of the ordinary size, previously at the North Tongue in the Princes Channel, which latter has been taken away.

A large nun buoy, painted red, and surmounted by a staff and ball, has also been placed in substitution of the red beacon buoy, of the ordinary size, previously at the West Oaze Station.

REGISTERED SAFETY YACHT, OR LIFE BOAT.

A new description of life-boat has been invented and patented by Mr. Bonney. There are two peculiarities about Mr. Bonney's invention; the material of the boat, which is gutta percha, and the disposition of the air chambers, which give the little vessel the peculiar buoyancy which characterizes her. A specimen of the invention was exhibited during the course of the present week upon the *Serpentine*, of which the following is the official technical account of the proportions and construction of the yacht:—Dimensions, length, 13 feet 6 inches; breadth, 4 feet 10 inches; depth, 2 feet 4 inches. Hull, clinker-built, planks of gutta percha, (or may be of other material,) cemented and copper-rivetted together. The sides are double, from the bilge upward to the spar-deck, and are divided into water-tight compartments; the fore and after parts of the boat are also divided into water-tight compartments, as is the outer gunwale. The keel and the keelson are of iron; and the latter is grooved to receive the ribs, and are all bolted together. The deck is double-laid, the upper diagonally with marine glue; the bilge timbers are deeper than usual, acting as extra keels; they, with the buoyancy of the outerwale, and the iron keel and keelson, as counterpoise, render it next to impossible to capsize her.

NEW STEERING APPARATUS.

At a late meeting of the Liverpool Society of Arts, a communication "On the Patent Safety Steering Wheel" of the *Asia*, invented by Captain Frazer, R. N., and Lieut. Robinson, R. N., was read. It consists in the application to the steering wheel of a friction band, similar to that used in cranes, which passes round a projecting circumference inside the wheel, and is brought down to a pedal on the deck by pressure, on which any amount of friction can be put on the wheel. It is not desirable that the helm should ever be at a "dead lock," without the power of yielding a little to the shock of a heavy sea, as that would endanger the carrying away the rudder. An adjusting screw is therefore provided, by which the amount of ultimate friction that can be put on the wheel is regulated, and not left in the power of the steersman. A great advantage of this invention, says the *Scientific American*, is the power which it gives of fixing the rudders of vessels lying in the tide-way or harbor, and thereby preventing the continual wear on the pintals of the rudder, and, in time, the loosening of the stern framing of the vessel.

DEPTHS OF THE EUROPEAN AND OPEN SEAS.

In the neighborhood of the continents the seas are often shallow; thus the Baltic Sea has a depth of only 120 feet between the coasts of Germany and those of Sweden. The Adriatic, between Venice and Trieste, has a depth of only 130 feet. Between France and England the greatest depth does not exceed 300 feet, while south-west of Ireland it suddenly sinks to 2,000 feet. The seas in the south of Europe are much deeper than the preceding. The western basin of the Mediterranean seems to be very deep. In the narrowest part of the Straits of Gibraltar it is not more than 1,000 feet below the surface. A little further toward the east the depth falls to 3,000 feet, and at the south of the coast of Spain to nearly 6,000. On the north-west of Sardinia bottom has not been found at a depths of nearly 5,000 feet. With respect to the open sea, their depths are little known. About 250 miles south of Nantucket the lead has been sunk to 7,800 feet. In north latitude, at 76°, Captain Ross has exceeded 6,000 feet in Baffin's Bay. But the most astonishing depths are found in the Southern Atlantic: west of the Cape of Good Hope 16,000 feet have been found, and the plummet has not found bottom at 27,600 feet west of St. Helena.

VALUE OF SEA BIRDS TO MARINERS.

"This coast (the South Stack, near Holyhead,) is the resort, in the breeding season, of innumerable sea birds—especially gulls, razor-bills, cormorants, and guillemots, but there are no puffins; peregrine falcons breed in the loftiest crags. No one, by order of the Government, is allowed to shoot the sea birds, as in foggy weather they are invaluable to steamers and shipping, being instantly attracted round a vessel, or induced to fly up screaming, by the firing of a gun. Poor Captain Skinner's mail-packet was once saved in this way. The late Bishop of Norwich, in his work on birds, stated that the gulls all instinctively assemble here on the same night, on or about the 10th of February, when they make a great noise; and nearly all retire on the same day, about the 12th of August."—*Cliffe's Book of North Wales*.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

THE ALABAMA AND TENNESSEE RIVER RAILROAD.

DIRECT RAILWAY COMMUNICATION WITH THE SOUTH-WEST, MOBILE, AND NEW ORLEANS.

We have a National Road, but the General Government has never, as yet, constructed a mile of railroad. If the clause of the Constitution, giving power "to establish post-offices and post-roads," cover a power to build railways, it is a curious case of construction, making our great Charter authorize a thing not invented, not thought of at the time of its adoption. Nor is this the first instance of the kind; and nothing, in fact, can be more unreasonable than the notion that only what was in the "contemplation," in the minds of the framers of the Constitution is allowed by it, and that it is a sufficient objection to any measure to say that it was not dreamt of by the Fathers of the Republic when they framed our Charter. If this be so, what becomes of our steamboats and the laws regulating their navigation? or of electric telegraphs? Is the Constitution a Chinese shoe, to pinch the growth of the country to the proportion of infancy forever?

Indeed, we must qualify our remark at starting, this much, that although the General Government has never chartered a railroad, or built one by the direct application of its own resources, yet it has appointed public lands in aid of State enterprises of the kind. Whether this amounts to the same thing in a constitutional point of view or not, (and we leave the point to the doctors,) it is clearly a proper step in the discreet management of the public lands, considered merely as a measure to increase the value of the lands unappropriated. A good railroad will doubtless double the value of any public lands in a new State within two or three years, and appropriating lands in this way is, no doubt, voting money into the Treasury.

But look at the matter from a wider and more national point of view. Here are thirty States. Every one of them is building or preparing to build railroads to connect the most eligible points within its own borders. At those borders its power stops. Yet the usefulness of such a road as well to its neighbors and the Union at large as to the State building it depends, perhaps, mainly upon its connection with other lines beyond the State limits, upon its position as a part or section of a great national track of railway—national, if not in the authority by which it is built, by the good which it does. Suppose, now, State prejudices, want of means, or any of the thousand strange influences which affect legislation, should prevent the Legislature of a particular State, lying directly in the way of a great line of railroad, from furnishing the connecting link. Would any one criticise very severely the interposition of the General Government in such a case? Oregon railroads, or Atlantic and Pacific railroads, or not, we look upon every reasonable appropriation of public lands in aid of State enterprises of the kind as a piece of thrifty stewardship and wise statesmanship.

Fortunately, the difficulties which we have supposed will generally be prevented by an enlightened regard to their own interest on the part of the States. They will see that what is best for the general interest is best for local interests, and that the most fortunate and favorable feature of a State enterprise of the kind is its connection with a general or national trunk of railroad.

It is, indeed, high time that our local and State railroad systems be *nationalized*, as it were; that they be constructed, that the gauge, the times of running, the rates of fare, and the rate of freight be arranged with reference to a general system of railroad communication between the States. In the North and East this is beginning to be done, and cars now run from the New Haven depot in Canal-street, New York, to the depot in Boston, on several distinct lines of railroad, without disturbing the traveler in his seat and without breaking bulk. In England the lines between London and Liverpool are brought under one director, and consolidated in fact into one company. In time the same system must become general here, and we shall see national lines of railway thousands of miles in length. Whatever becomes of the railroad to the Pacific, the time is near when trains will daily leave the depots in Boston and New York for Chicago and St. Louis in the West, and for Mobile and New Orleans in the South-west. The traveler will leave the capital of New England at sunset and before the third sunset following will find himself in Mobile, or perhaps in New Orleans. Traveling westward with the sun, he flies through New York and the orchards of New Jersey, and anon he is at the foot of the Alleghanies, with the Blue Ridge on the left

and the main West Ridge on his right hand, following the Shenandoah by a route through the Great Central Valley of Virginia, which seems graded by nature herself in anticipation of railroad enterprise which is to overcome the obstacles that divided States. And now our traveler has reached the borders of Tennessee—Winchester, Staunton, Abingdon, and Knoxville have been passed, and he is on the Tennessee River at Chattanooga, and but three hundred miles from Mobile, where he will step from the cars in ten or twelve hours more, ready, if business calls, to hurry on by car again to New Orleans. Ten years will do all this. Look at the map.

The direction of the Atlantic coast of the United States is south-west. The direction of the Ohio and Mississippi, considered as one continuous channel, is also south-west. The Atlantic and gulf coast, taken together, form an *ellipse* with those rivers, converging and meeting, we may say, at New York and New Orleans, between which they afford the great routes of steam communication. The river route diverges very far to the north-west—the coast route very far to the south-east of a direct line. A direct route would lie, of course, in a straight line between the two points, the axis of the ellipse. This will, no doubt, be the route of one of the national trunks of the American Railroad.

Another line will stretch westward to St. Louis.

A third line is from the south Atlantic coast, northwest, to the Mississippi and Ohio; and this is already more than half completed on two routes, from Charleston and from Savannah. Some of the road is completed already through Augusta to Rome, a distance of about 350 miles, and will soon be finished, if not already opened, through to the Tennessee River, at Chattanooga. By the Central line of Georgia, and the Alabama Railroad, Montgomery, in Alabama, is connected with Savannah. In fact, the only links wanting to complete a continuous line, uninterrupted, except by the natural breaks, such as rivers like the Hudson, and bays like the Chesapeake, which railroad enterprise must put up with as best it can, from Portland to Montgomery, and between Wilmington, North Carolina, and Charleston, and between Charleston and Savannah. About two hundred miles of railroad here would make the chain complete. From Montgomery there is easy and uninterrupted communication by the Alabama River, which, for steam navigation, is said to be unsurpassed. This route is a coast route; it follows the east curve of the ellipse. Of course the distance must be much greater than by a direct route, such as we have described, following a straight line, the axis of the ellipse, through the great valley of Virginia. Of this route, the road is completed and in operation from Portland, Maine, to Winchester, Virginia, at the entrance of the valley. From Winchester, a line to Louisa, along the valley, is, and a road beyond Louisa, also, are projected. Of the local interest of a line like this, running south-west through the heart of Virginia, we cannot stop to speak. As a section of the National Railroad to Mobile, it brings us to Abingdon, from which to Knoxville, and from Knoxville to Chattanooga, the route is almost a straight line, perfectly feasible and easy, and railroads are already projected along the whole.

There remains an important link from Chattanooga, on the Tennessee River, to Selma, on the Alabama. This link the Alabama and Tennessee River Railroad Company will supply. The company is already organized; its president J. W. Lapsley, Esq., of Selma. From a report of Lewis Froost, Esq., the chief engineer of the road, we have obtained numerous interesting particulars in relation to the southern railway communication in general, as well as to the proposed line.

From Selma, the steam communication by the Alabama River with Mobile is uninterrupted at all seasons of the year. It is from Selma that the proposed road will run north-east to Montevallo, a distance of some fifty-seven miles. Of this distance, about twenty-seven miles, commencing at Selma, were graded in 1837, and are nearly ready for the superstructure. From Montevallo it runs still north-west to Gadsden, on the Coosa River. From some eligible point on this part of the line it is proposed to construct branches connecting with the Georgia and South Carolina lines at Rome and Chattanooga. The latter branch is the more important, considered with reference to its connection with a great trunk of railroad communication with the North. It lies in the direct line of the route which we have traced through the valley of Virginia. From Gadsden the line will be continued, by a company already chartered, to the Tennessee River at Gunter's Landing.

The advantage, in time and distance, of a direct line like the one of which the proposed Alabama and Tennessee Railroad will form an important section, between New York and Boston, at one end of the *ellipse*, and Mobile and New Orleans at the other, over either the coast route diverging south-east, or a river route diverging south-west, is obvious:—

The distance from Boston to Mobile, by the way of Richmond and Charleston, West Point, and Montgomery, is.....	1,803 miles.
New York to Mobile, same route.....	1,565
Boston to Mobile, by the direct route we have indicated.....	1,582
New York to Mobile, same route.....	1,344

Difference..... 221 miles.
Or, in time, 18½ hours at *slow* rates.

The distance from New York to New Orleans, by way of Pittsburg, down the Ohio and Mississippi, is about 2,500 miles. Difference between this route and the direct route through the valley of Virginia, in distance and in time, between steamboats on the one, and the locomotive on the other route, ten or twelve days. By steamer from New York to New Orleans, the distance, about 2,500 miles, is made in some 9 days.

Apart from national and general considerations of this kind, the proposed railroad from Selma to the Tennessee River presents many features of interest to all who are interested in the prosperity of Alabama. Few out of the State are aware of its mineral riches. Those who have read Mr. Taylor's learned statistics of coal need not be told that it abounds in bituminous coal of excellent quality. In the four great coal-fields of Tuscaloosa, Cahawba, Coosa, De Kalb, and Marshall counties, the strata vary in thickness from two to ten feet. These coal-fields are all within reach from the Alabama and Tennessee Railroad. Side by side with the coal lie beds of iron ore, whose excellent quality has been tested, and which in Benton, Talledega, and Shelby counties, are beginning to reward the enterprise of the iron masters. Several beautiful varieties of marble, and limestone of good quality, are found in counties along the route; in Talladega a jet black marble, and in Shelby a blue and grey marble. Gypsum is another of the mineral treasures of this part of Alabama.

We give some figures from the census of 1840, and the Patent Reports of 1849 and 1848, showing the resources of the region through which the road will pass:—

Population..... 223,206

STOCK.

Horses and mules.....	77,025
Neat cattle.....	307,959
Sheep.....	92,916
Swine.....	799,786
Value of poultry.....	\$215,491

PRODUCTS OF THE FIELD.

Bushels of wheat per annum.....	818,000
“ oats “.....	970,000
“ corn “.....	14,410,000
“ potatoes “.....	565,000
Pounds of tobacco.....	220,000
Pounds of cotton per annum.....	66,464,860
Value of home-made family goods.....	\$1,215,179

The question is one of no small moment to the people of this region, how their two hundred thousand pounds of tobacco, their sixty millions of pounds of cotton, and fourteen millions of bushels of corn, shall most expeditiously and cheaply reach the best market. Another, and still more vital question for that State is, why is it that their exhaustless mineral and agricultural resources, their wealth of cotton and corn, of marble, coal, and iron, is so little thought of, so imperfectly developed? Alabama contains 50,722 square miles, or 32,462,080 acres. Of these there had been sold, up to January 1st, 1849, 10,852,233; so that although nearly the whole State has been surveyed, and the land is in the market, only about one-third has been occupied, and has begun to yield a portion of the treasures it contains.

One great difficulty (to mention only one) in the way of the development of this and neighboring States, is the “magnificent distances.” “Washington and our broad lands,” it has been said, “are the standing boasts of Americans.” Quantity of territory is certainly a thing we never object to, but it must be admitted that a region lying one or two thousand miles from market lies under some disadvantages under which people less favored with room do not labor. To the development of such a region, mean of communication, easy and rapid, are of the highest importance; not merely for through travel, as it is called, or communication with distant parts, but for

the purpose of connecting the distant parts of the same region, and facilitating local communication, the conveyance of home freights, and the supply of the home market. A State three or four hundred miles long needs railroads to open its own treasures to its own people, and to furnish the settler on new lands with supplies of such necessities as a new country cannot produce.

Mr. Froost, in his report, gives estimates of the probable business that will be done on the proposed road in various articles of freight, both imports and exports. In cotton, the way and through business he estimates at 98,000 bales; of flour, he thinks 90,000 barrels will be carried; of coal, 60,000 tons. Of iron, 15,000 tons are now made in East Tennessee, and 6,000 tons in the region through which the road will pass. The stock-raising districts of Tennessee and Kentucky will supply a large business for their chief markets, South Alabama, Mississippi, and Louisiana, in hogs, cattle, horses, and mules.

The whole of the central region of the Union, with which this road would communicate, would naturally obtain its supply of sugars and molasses from Louisiana and Texas, by means of it, and send in return its flour, bacon, beef, and cotton; of which it would also send in large quantities northward, in return for their immense supplies of merchandise, which New York and the other northern capitals send by the way of the Mississippi or the coast, and which, on the construction of a central trunk of railway through the valley of Virginia, would naturally take it as the shortest route to the south-west.

Of the effect of public works of this kind in raising the value of the lands through which they pass, we have proofs enough. One of the latest is the sudden and somewhat speculative movement which has been witnessed during the last six months along the Hudson River, although the Albany Road is barely more than half finished. The land along this route is held at twice the rates it sold for two years ago. The Southern Quarterly Review states, that since the construction of the South Carolina Railroad, land all along its route had risen 50 per cent, and in some cases, at a much higher rate; and that at points where there were not \$20,000 of trade, a trade of \$200,000 had sprung up.

The policy of encouraging a public work like the proposed Alabama Road, forming an important section in a national line of railroad, and, at the same time, connecting distant points of a large State, more than one-half of which is public land belonging to the general government, and rich in natural wealth, hardly needs further discussion. Every acre given to such a work by government would doubtless be twice paid for within two or three years of its completion by the increase of what remains, and be an hundred fold repaid by an increased production and population, facilitated intercourse between near and distant points, and the iron bands of union closer drawn.

AMERICAN vs. ENGLISH RAILWAY MANAGEMENT.

The following paper was originally published in *Herepaths' (London) Journal*, of June 8th, 1850. The letter to which the editor of that journal refers and quotes so freely from was written by E. H. Derby, Esq., of Boston, who has frequently contributed to the pages of the *Merchants' Magazine*, and as our foreign cotemporary remarks, "the name gives weight and character to the statement:"—

A propos to the subject of superior management of American railways, upon which we had last week a word to say, we have just received a letter from an esteemed American subscriber to our journal. His letter is not, however, (necessarily so—the date would not admit of that,) in reference to what we have said upon the subject, but to an article which appeared in the daily "*Times*," speaking of great deterioration of American railways, a statement which our correspondent successfully combats.

We are not quite certain that our correspondent intended his name to be published. We should have been much pleased to be able to mention it, as we think it would add weight to his communication; but as we are not quite clear that such was his intention, we refrain from doing so. In the first part of his letter he says:—

"It is now more than ten years since I commenced reading your journal, and following through it the progress of English railways, and I have derived from it both instruction and amusement. I have followed with you the birth and downfall of the atmosphere, and witnessed the fulfilment of your prophecy respecting it; the contest as to high and low fares, amalgamation, exposure of jobbing, Parliamentary oppression,

the folly of unnecessary trains, and wasteful outlays on stations. I have been able to agree with you in most of your propositions from my American experience, having been a Director in New England, in New York, and appreciating as I do the independence and intelligence of your journal, I wish, &c."

The subsequent part of his letter contains this very valuable and important statement, which we earnestly recommend all English railway proprietors, directors, and officials to peruse attentively.

"*American Railroads.*—The impression prevails very generally in England that an American railroad is a light and flimsy affair compared with the English, and a writer in the '*Times*' has even ventured so far as to rate the annual deterioration at 14 per cent; but these views are very wide of the mark, for an acquaintance with nearly all our lines satisfies me, as well as an inspection of the English in 1843 satisfies, that the former are generally substantial structures, and the deterioration beyond ordinary repairs on an average less than one per cent on the capital. The lines are undoubtedly cheap compared with the English, but this cheapness may be ascribed to a great variety of causes.

"1st. To the almost entire exemption from Parliamentary expenses. The cost of obtaining our charters has not averaged ten dollars per mile.

"2nd. To the moderate cost of land, which I think has not in New England cost for an average width of four rods, more than fifteen hundred to two thousand dollars per mile. (£300 to £400.)

"3rd. To the low rate of law expenses, which from the simplicity of our laws and moderate rate of charge, have not averaged \$50 (£10) per mile of railroad. The average cost of these three items in England, which with us would be less than £4,000 a mile, would pay for and equip a mile of some American railroads. I know a line 50 miles long, with a rail weighing 50 lbs. per yard, that has not cost £4,000 per mile.

"4th. Ours are generally surface lines, we have few tunnels or viaducts; we follow valleys and do not turn out for country seats; our works are of course light, and we have not been anxious of late to bring down our gradients below one foot in an hundred and twenty-five, and sometimes rise to one in sixty five.

"5th. We have avoided jobbing and high salaries, advertise for tenders, pay our chief engineers £400 to £600 a year, and in this country, where labor is dear, have had our earth work done on an average of eight pence, and our rock cutting for three to four shillings for each yard moved into embankment or to spoil.

"6th. Our stations have been built for use, not show, and are more convenient, but less costly, than the English.

"7th. Our lines have generally single tracks with sidings, and sometimes a section of double track near the center; not more than one-third have a second track, and then only where the business requires it.

"8th. Our equipment is less costly, we do not send on an average more than six trains daily in each direction, including freight trains; our cars carry 60 passengers, and we of course lay out less money in cars, engines, and sheds. Our engines cost about £1,500, and our large cars about £350 each.

"9th. We construct our engines with four driving wheels, and limit the weight to three and a half tons on each wheel, while the English engines throw five to ten tons upon a wheel; of course we do not require the same weight of rail to carry the same number of tons of passengers and freight.

"In Massachusetts, a small but rich State, we have over 1,025 miles of railroad, of which 373 miles have second tracks. Our lightest rail on any main line weighs 50 lbs. to the yard, and the average weight exceeds 58 lbs. The average speed of our express trains is 32 miles, and of our accommodation trains 21 miles to the hour, including stops. The aggregate cost of these lines to January 1st, 1850, has been ten millions sterling; their gross income for 1849, £1,200,000; their net income £600,000, being nearly 7 per cent on nine millions sterling, the amount invested at the beginning of the year 1849. The business is progressive. The gross earnings per mile run for 1850 have been \$1 41-100, or 5s. 10d. per train, and the expense, including taxes, renewals, &c., 70c., or 2s. 10d. Our fuel is principally wood, costing on an average 9d. per mile; but we shall soon have coke at reduced prices. Our average charge for first and second class passengers is about five farthings per mile, including baggage to the extent of 50 lbs. to 80lbs.

"Our stocks have been depressed from over-action in building railroads and factories; but money has fallen from 18 to 7 per cent, construction is nearly closed, and stocks are recovering. Stocks that pay 7 per cent are now at par.

"The railroads of Massachusetts are a pretty good sample of those of the Union, of which they form more than an eighth part; perhaps they are a little better than an average, as some of the southern and western lines have not yet replaced all their strap or flat bar rails, although they are fast doing so. The impression that our roads were light and flimsy arose from these rails, and the superstructure of our bridges of wooden truss-work, resting in long spans on stone abutments and piers, and our wooden sleepers and station houses; but the renewal of these adds little to the annual expenses. For 1849 the whole cost of road repairs, including renewals, was less than an average of £125 per mile of railroad in Massachusetts.

"Lines are now in progress in other States which will bring Boston this autumn within 15 hours of U. Canada; and in two or three years more will bring Boston, New York, Philadelphia, Baltimore, Charleston, Savannah, and Mobile within two days of St. Louis. We then propose to unite on a line which shall ere ten years expire bring St. Louis within four days of San Francisco; a line of steamers will then be put on which shall reach China in seventeen days more. This will bring London within thirty-five days of Canton. Brother Jonathan is wide awake, and whatever you may think about railways in London he has learned to appreciate their value, both as an investment, and for the attainment of commerce, civilization, and power.

"BOSTON, MASS., May 18, 1850."

PASSAGES OF THE ASIA, EUROPA, AND ATLANTIC.

The following statements of the three last passages across the Atlantic, by the steamers Asia, Europa, and Atlantic, respectively, we extract from the London *Times*.

Asia left Boston 12th June, at 12.20 noon.	d.	h.	m.
Arrived at Liverpool 22nd June, at 7 A. M.....	9	18	40
Less difference of time.....	0	4	40

Deduct detour going into Halifax, remaining at wharf, and coming out from Halifax.....	9	14	0
	0	15	0
	8	28	0
Add difference between a voyage from New York to Liverpool, and Boston to Liverpool.....	0	18	0
	0	17	0

Asia's voyage from New York direct would be nine days seventeen hours.

Europa left New York 5th June, 12.20, noon.			
Arrived at Liverpool 16th June, 8.0 A. M.....	10	19	40
Off difference of time.....	0	4	40
	10	15	0

Deduct for detour going into Halifax, remaining at wharf and coming out from Halifax.....	0	15	0
	10	days.	

Atlantic left New York 15th June, at noon.			
Arrived at Liverpool 26th June, at 5 A. M.....	10	17	0
Off difference of time.....	0	4	40

Europa's passage.....	10	12	20
	10	0	0

In favor of Europa.....	0	12	29
Passage of Atlantic	10	12	20
Passage of Asia (equal to her voyage from New York direct).....	9	17	0
In favor of Asia.....	0	19	20

BOSTON AND MAINE RAILROAD.

The fifteenth annual report of the directors of this road has been issued. It states that, "the usual July dividend has been delayed to the end of the year, by the action of the stockholders in the protracted inquiry and severe scrutiny which they caused to be instituted through their committee of investigation. The result of this examination into the condition of the company proves the unquestionable soundness of the enterprise, and calls for renewed diligence on the part of the directors, and must give to the stockholders and the public the fullest confidence in the prosperity of the road." The following statement shows the business of last year:—

The reserved fund, by the last annual report, amounted to.....	\$48,272 45
Income for the year ending Nov. 30:—	
From passengers.....	332,214 00
From freight.....	168,974 21
From mails, rents, and use of road.....	21,147 30
	<hr/>
	\$570,607 96
The expenditure properly chargeable to the operating of the road, and for depreciation of engines and cars.....	276,199 42
	<hr/>
	\$294,408 54
From which is to be deducted as extraordinary charges for this year, the items for loss of Salmon Falls Bridge car-shop, at Lawrence, committee of investigation and interest.....	53,491 19
	<hr/>
	240,917 35
A dividend has been paid on 35,568 shares, of 5½ per cent.....	195,624 00
	<hr/>
Leaving as a present reserve.....	\$45,293 35

NORTH AND EAST RIVER STEAMBOATS.

We give below a list of the regular lines of boats plying on the North, or Hudson, River, and also on the Long Island Sound, or East River, and forming regular lines between New York and Boston, Stonington, Providence, Newport, Fall River, Norwich, New Haven, Albany, Hartford, Philadelphia, Hudson, Catskill, etc., etc.:—

BOSTON LINES.

BAY STATE STEAMBOAT COMPANY.

Name of vessel.	Captain.	Tonnage.	Length, feet.	Power of engine.
Empire State.....	Brayton.....	1,600	320	450
Bay State.....	Brown.....	1,600	320	450
State of Maine, (spare boat).....	.....	900	...	...

These boats run for Boston, *via* Newport and Fall River, daily, and are nearly new, the company having been established in 1847. Fare, \$4. They start at 5 P. M., from pier No. 3, North River.

THE STONINGTON AND PROVIDENCE LINE.

Vessels.	Captain.	Tonnage.	Length.	Engine.
C. Vanderbilt.....	Stone.....	1,500	330	500
Commodore.....	Frazer.....	1,000	300	500

These boats start, on alternate days, from pier 2, North River, at 5 P. M.

NORWICH AND WORCESTER LINE.

Vessels.	Captain.	Tonnage.	Length.	Engine.
Knickerbocker.....	Williams.....	1,000	300	300
Worcester.....	Wilcox.....	1,000	300	280

One of these boats starts every day at 5 P. M., from pier 18, North River.

NEW LINE TO HARTFORD.

Vessels.	Captain.	Tonnage.	Length.	Engine.
Connecticut.....	Peck.....	1,200	330	700

This beautiful boat starts every Monday, Wednesday, and Friday, from Murray-street, at 6 P. M.

NEW HAVEN.

Vessels.	Captain.	Tonnage.	Time of starting.	Where from.
Cataline.....	Sanford.....	500	Every day, 4 P. M.	Peck-slip.
Hero.....	King.....	500	" "	"

POUGHKEEPSIE.

North America ..	Beebe.....	450	Alternate days.	"
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BRIDGEPORT.

Norwalk.....	Peck.....	300	Every day, 3½ P. M.	Fulton-slip.
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FLUSHING AND ASTORIA.

Washington Irving	Leonard.....	450	{ At 9 A. M., and 5 } { P. M., daily. }	"
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GLENCOVE.

Croton.....	Peck.....	500	Daily, 3 P. M.	"
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STONEYBROOK.

Pacific.....	Mannie.....	114	Alternate days.	Peck-slip.
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HARTFORD.

Champion.....	Tinklepaugh ...	500	"	"
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The above do not probably embrace all the river boats in this vicinity If we have omitted any we trust that those interested will send us word.

ALBANY LINES.

THE PEOPLE'S LINE FOR ALBANY.

Vessels.	Captain.	Tonnage.	Length, feet.	Power of engine.
Isaac Newton.....	Peck.....	1,400	339	500
Oregon.....	St. John.....	1,050	330	500
New World.....	Acker.....	1,400	376	500
Hendrik Hudson.....	.....	1,200	341	500
Alida.....	Stone.....	1,600	341	450

INDEPENDENT LINE TO PHILADELPHIA.

Vessels.	Captain.	Tonnage.	Length.	Engine.
Kennebec.....	Flowers.....	500	230	250
Penobscot.....	Seymour.....	500	230	250

These boats start daily at 5 P. M., from pier 12, North River.

MISCELLANEOUS LINES.

HUDSON.

Vessels.	Captain.	Tonnage.	Time of starting.	Where from.
Hudson.....	Mellen....	400	One every day, 5 P. M.	Foot of Cedar-st.
Columbia.....	King.....	500	" "	" "

CATSKILL.

Washington.....	Coffin.....	700	" "	" "
Utica.....	Penfield..	700	" "	" "

ALBANY.

Rip Van Winkle....	Schuyler..	450	Every day, 6 P. M.	" "
Manhattan.....	Neilson ...	450	" "	" "
Buffalo.....	Smith.....	450	" "	Barclay-street.

BONDOUT.

Highlander.....	Henderson.	350	Every day, 5 P. M.	Murray-street.
South America.....	Anderson..	450	" "	"
Barge Ulster County.	— ...	110	Once a week.	"

KEYPORT.

Chingarora.....	Whitlock..	320	Every day.	"
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REVENUE OF BRITISH RAILWAYS.

The revenue of British railways, observes a contemporary, cannot now be put down at less than twelve millions a year—a greater sum than many important political States possess. Two hundred millions of money were expended upon them up to the close of last year, and even in the midst of the deep depression of 1848, when commerce was, as it were, in a state of complete collapse, not less than £33,234,818 were expended in railway works. The number of passengers on these "new highways" during the last six months of 1848 was no less than 31,630,292, expending a sum of £3,283,301; or at the rate of 63,260,584, expending £6,566,602 for the year. In the same half-year, goods, cattle, and parcels were conveyed at the charge of £2,461,662, or £4,923,324 in the year. The amount of traffick for the week before last (Sept. 22) on 4,941 miles of railway was £245,550, being an increase of £19,815 over the corresponding week of last year, when the mileage was 4,091. The average earnings per mile were £60, while last year they were £55.—*London Builder*.

JOURNAL OF MINING AND MANUFACTURES.

GUTTA-PERCHA.

Gutta-percha is the concrete juice of a large tree of the same name, abounding in the islands of Borneo and Singapore, in Sarawak, and along the Malayan Peninsula. Up to this time it has not been discovered on this continent, but no doubt it will be found in corresponding latitudes, whenever the rich treasures of the Equatorial regions are opened to the exploration of our countrymen. For the present consumption, the Singapore market furnishes an abundant supply; and at a cost of importation less than the cost of caoutchouc from Brazil.

With the introduction of gutta-percha into England commences the first valuable application of it to practical purposes. This was made in the year 1843, by Dr. Montgomery. The first articles of use made of gutta-percha were submitted to the Society of Arts in 1844, and consisted of a lathe-band, a short piece of pipe, &c. From that period to the present about 1,600 tons have been imported into England for the London Gutta-Percha Company, who control all the patents for its use issued by the English Government; and, with a capital of £300,000 sterling, monopolize the business, which, we are informed, has reached an annual dividend of 21 per cent.

The article and business was first introduced into the United States by S. T. Armstrong, Esq., of this city, in the autumn of 1847, and to his enterprise we are solely indebted for the introduction and rapid development of this valuable addition to our manufactures. The capabilities of gutta-percha in the useful and ornamental arts are unbounded. There is no conceivable limits to its application, and the utmost surprise and gratification have been uniformly expressed by those who have examined the results of his persevering labors.

The name is Malayan—"gutta" meaning the gum or concrete juice of a plant, and "percha" the particular tree from which it is produced. The *ch* is not pronounced hard like a *k*, but like the *ch* in the English name of the fish *perch*. It should have

been called gutta-tuban, as the percha tree produces an inferior article—the kind used in manufactures being obtained from the “tuban” tree, by tapping the trees periodically. It is imported in oblong masses, which are formed by rolling thin layers of it together in a soft state. The excess of water being evaporated, it becomes rigid at the temperature of the atmosphere, is non-elastic, excessively tough, and as hard as wood. It is composed of fibers, held together by the glutinously adhesive property of the material, and in color and other respects resembles the slippery elm bark, compressed in solid blocks. It sustains no injury from climate or immersion in water. A part of the cargo of the “Yumchi,” stranded on the Jersey coast in the spring of 1848, remained in the water fifteen months, and when recovered was found unaltered and equal in every respect to the balance of the cargo, which was saved. Owing to the careless manner in which it is collected by the Malays, it is mixed with fragments of bark, wood, leaves, and sand, and in the process of manufacturing must first be cleansed, losing from impurities from 10 to 20 per cent. Some small lots recently imported, have been found to be extensively adulterated with a worthless chalky substance. Whether this fraud is attributable to the natives who gather it, or to dishonest factors at Singapore, is not ascertained; but it cannot be sold in this market, and importers cannot be too particular in instructing their agents to procure it clean and unadulterated.

When the tariff of 1846 was adopted, gutta-percha was unknown in this country as an article of commerce; consequently it was not classed, and pays a duty of 20 per cent as an unenumerated article; but it is admitted into England free of duty. We are informed that Congress has been petitioned to classify it, and either admit it on the free list, or at a nominal rate of duty. As the amount of consumption will depend, in a great measure, upon the cheapness of the article, its main application being for practical purposes connected with manufacturing and telegraphing, and from its peculiar and valuable properties it is found to occupy a prominent place in the list of staples, supplying a want, not heretofore supplied, necessary to enable us to compete with other nations; but more especially as it never can become an article of home production, being confined to tropical regions. The argument is entirely in favor of a low rate of duty, both for the interests of commerce and manufactures.

The properties of gutta-percha ought to be more generally known; we feel justified, therefore, in devoting a short space in our pages to the subject; giving such reliable facts only as have been developed up to the present time, premising that the business is yet in its infancy, and that time, capital, and ingenuity are needed to its full development.

Gutta-percha is often confounded with India rubber or caoutchouc, whereas it differs from it in every important particular; and is capable of a vastly wider application in all the useful and ornamental arts. The most valuable property of India rubber is its elasticity; but gutta-percha is comparatively non-elastic, having, in its manufactured form, but 5 per cent of elasticity or spring. The action of heat upon India rubber is to soften the mass, and it remains soft and sticky unless vulcanized—an objectionable process, on account of the bad smell of the sulphur incorporated with it, the poisonous property of the white lead used in large quantities, and the deteriorating influence of a high degree of heat upon the strength of India rubber. On the contrary, the gutta-percha, when softened by heat, can be rolled into sheets as thin as tissue, or worked into any form, and immediately becomes rigid at the temperature of the atmosphere, being free from all stickiness, and retaining all its original toughness and flexibility. The gutta-percha is soluble, but not by the same agents as India rubber—it resists the action of alcohol, ether, acids, oils, and greases as perfectly as it does that of water. Tar-naptha is a perfect solvent for gutta-percha, dissolving it at summer heat, and

holding it suspended. As it does not dissolve the coloring matter contained in it, the product, on evaporating the naptha, is a thin, soft, beautiful white and water-proof sheet, resembling the finest kid leather, and suitable for gloves, linings, garments, &c., and can be printed upon without ink, giving a beautiful semi-transparent picture or letter.

The plastic art finds in gutta-percha its most valuable auxiliary. Softened by water at a temperature of 180° , it is easily molded into any required shape or form, which it retains without shrinking when cooled, giving a remarkable sharp cutting and truthful fac-simile of the mold, in a substance imperishable and that cannot be broken. Copies of the most delicate foliage, far exceeding the most elaborate carvings in beauty and truthfulness, have all the strength and durability of raw hide.

Telegraphing by electro-magnetism is uncertain and expensive without gutta-percha as an insulator. Sulphur, glass, wax, silk, and all the known substances, which are but indifferent conductors of electricity, had been tried and rejected as unsuited to the covering of extended lines of wire; consequently, the wires have been extended through our cities, towns, and villages on unsightly poles, subject to the action of atmospheric electricity, marring the beauty of our streets and parks, endangering the lives of our citizens, and liable to constant interruption by wind and storms and the pranks of mischievous urchins. The combination in gutta-percha of strength, flexibility, and other properties which render it durable, together with the ease with which, in its soft condition, it is wound by machinery around the wire, and its perfect non-conducting property as respects electricity, direct our attention to it as the one thing needed to perfect this great and valuable discovery. Rivers are crossed by laying wires, insulated with gutta-percha, upon the bed or bottom, and shortly we may expect to see poles discarded, and the Prussian plan of putting wires two feet in the ground adopted; for then, and then only, shall we have a perfect and reliable system of telegraphing—profitable to the companies and in universal use.

Gutta-percha is made to take the place of cast-steel in the manufacture of cylinders for cotton-gins and cotton and woolen machinery, reducing the cost of such machinery and rendering it better suited to the wants of the country. Again: as it is not expanded or contracted by any degree of heat or cold under 100° F., and is unaffected by dampness, acids, and oils, retaining a life-spring of 5 per cent, it is found most suitable for machine-bands, and must rapidly take the place of gearing in manufacturing by water-power, very materially reducing the cost of erection, and giving a steadier power—noiseless, uniform, and permanent.

Gutta-percha is also substituted for lead or iron in manufacturing water or gas-pipes and is found far preferable to either, being cheaper, not liable to oxidize, free from poison, not injured by frost, and sustaining any amount of pressure without bursting.

It is imporous, an excellent conductor of sound, resists abrasion in an eminent degree, makes a water-proof and durable sole to shoes, and in many other respects takes the place of leather. It is found to be a good absorbent, but a poor conductor of heat, remarkably adhesive at a high temperature. It is easily joined without resorting to other substances to connect it. A new substance found in Nature's laboratory in such abundance, and with so many valuable and remarkable properties, is destined, no doubt to enter largely into the consumption of civilized nations.

We cannot close this article, however, without calling the attention of surgeons and others to its great value for splints, bandages, bougies, catheters, and capsules. Dr. Thomas Oxley, Senior Surgeon of Singapore and Malacca, says:—"Of all the purposes to which gutta-percha may be adapted, none is so valuable as its application to the practice of surgery."

THE PROGRESS OF COTTON FACTORIES IN THE WEST.

The editors of the *Cincinnati Price Current, Commercial Intelligencer, &c.*, are engaged in collecting statistics of the progress of different branches of manufacturing industry in Ohio and other Western States. A late number of the *Price Current* contains an article on the cotton factories of the Western Valley, as far as their information extends. The following summary statement of these establishments was obtained by writing to the several parties, the proprietors of the mills. It is believed to be pretty nearly correct. It will be seen by this account that there are in operation in the Western Valley ninety-three thousand two hundred spindles; and the additions to be made to factories in the city of Cincinnati, will, in another year, swell the number to more than *one hundred thousand*. The consumption of cotton is near twenty-six thousand bales per annum. There is, in addition, considerable cotton consumed in the manufacture of batting, which we have not included in our statement.

The products of the mills noticed are all disposed of in the West. Those in and near Cincinnati find there a ready market for their cloth and yarns; and the demand, particularly for sheetings, is such that stocks do not accumulate. Considerable quantities of Pittsburgh sheetings are also disposed of in Cincinnati, and still there is a market for Eastern sheetings, which are brought from Boston:—

In Cincinnati, Covington, and Newport, there are five factories, namely: Franklin Mill, of Harkness, Fosdick & Strader; Pearce, Gould, & Co.; J. C. Giesendorff; Covington Cotton Factory, and Newport Cotton Factory.

The Franklin Factory has 10,000 spindles; 220 looms; manufactures 42,000 yards of brown sheeting weekly; consumes 1,800 bales of cotton per year, and employs daily 250 hands; steam power.

Gould, Pearce, & Co., 2,500 spindles and 32 looms; produces 300,000 yards of sheeting per annum, and 150,000 pounds cotton yarn; consumes 600 to 700 bales of cotton yearly, and employs daily 60 hands; steam and water power.

O'Shaughnessy & Co., 3,000 spindles; manufactures 13,500 yards 4-4 brown sheetings, and 2,000 pounds cotton yarns per week; consumes 900 bales of cotton per year; employs daily 75 hands; steam power.

Covington Cotton Factory, R. Buchanan, agent; 2,600 spindles; makes yarns only; consumes 950 bales of cotton per annum; employs about 90 hands; steam power.

J. C. Giesendorff, 1,000 spindles; produces 5,000 pounds yarns, wick, and batting, per week; consumes 500 bales of cotton yearly, and employs 30 hands; water and steam power.

The above spindles are all in operation, and in addition to these, Messrs. O'Shaughnessy & Co. intend to increase their number from 3,000 to 6,000; and Mr. Giesendorff, who has just removed his machinery into a new building, purposes adding to the number of spindles from time to time, until it is increased to 6 a 7,000.

The Cooper Cotton Factory, Dayton, 2,300 spindles; produces yarns; consumes 900 bales of cotton annually, and employs about 80 hands; water power.

Castalia Manufacturing Company, Castalia, Ohio; 1,700 spindles, 48 looms; 1,200 to 1,400 yards heavy brown sheetings made per day; consumes 312 bales of cotton annually; employs 35 to 40 hands.

Springfield Cotton Mill, Springfield, Ohio; 500 spindles; produces 90,000 pounds yarns, carpet warp, and batting, and consumes 200 bales of cotton annually; employs about 20 hands.

Maysville, Kentucky, Cotton Mill, A. M. January, & Co.; runs 3,700 spindles; produces cotton yarns only; consumes 1,000 to 1,200 bales of cotton per annum; employs 85 to 100 hands; steam power.

Brookville, Indiana, J. Woods; runs 1,200 spindles; produces 600 pounds yarns per week; employs 30 hands; water power.

Steubenville, Ohio, G. E. & J. W. Warner; runs 4,700 spindles; produces 900 yards of brown sheetings and 15,000 pounds yarns per week; employs 180 to 200 hands.

Zanesville Cotton Mill, Zanesville, Ohio; 1,744 spindles; produces 232,500 pounds yarns, warp, and batting per annum; consumes 250,000 pounds cotton; steam power.

Miamisburgh, Ohio; M. Cassidy & Co; runs 500 spindles; produces 2,150 pounds yarns, batting, &c., per week, and consumes 200 bales of cotton per year; employs 20 hands; water power.

Wellsville, Ohio; runs 2,000 spindles; produces yarns; consumes 750 bales of cotton per year.

Pittsburgh Fagle Factory; 6,000 spindles; produces yarns only; consumes 1,600 bales of cotton per annum.

Alleghany Factory; 1,500 spindles; produces yarns; and consumes 600 bales of cotton per annum.

Penn Mills; 6,300 spindles; produces sheetings, and consumes 2,500 bales of cotton per annum.

Pitt Mills; 4,500 spindles; produces sheetings; consumes 1,200 bales of cotton per annum.

Star Mills; 3,600 spindles; produces sheetings; consumes 900 bales of cotton per annum.

Eagle Mills, 6,000 spindles; consumes 2,750 bales cotton. Hope Factory runs 6,600 spindles, and consumes 3,000 bales cotton.

Wheeling Manufacturing Company; 2,000 spindles; produces sheetings; consumes 700 bales of cotton per annum.

Brighton, Pennsylvania; 1,000 spindles; produces sheetings, and consumes 400 bales of cotton per year.

Cannelton, Indiana; (now receiving the machinery, and will be in operation about the 1st of May;) capacity, 10,800 spindles; estimated production, 5,000,000 yards of No. 14 brown sheetings per annum.

There are in addition to the above, mills at Bon Harbor, Lexington, and Paris, Kentucky; Columbus and Dayton, Ohio, from which we have no statement; but from what we have been able to learn, their combined capacity is about 12,000 spindles.

Since writing the above, we have received the *St. Louis Price Current* of the 20th April, from which we learn there is a factory in that city, owned and conducted by A. Meyer & Co., which works 4,000 spindles, and consumes 1,400 bales of cotton per annum. The productions are yarns, twines, warp, and batting, for which a ready home-market is found. There are 130 persons employed in the establishment.

PRODUCTION AND MANUFACTURE OF SUGAR IN LOUISIANA.

The subjoined statistics of the production and manufacture of sugar in Louisiana, &c., are condensed from a work recently published in New Orleans, giving a statement of the sugar crop for the seasons of 1849-50:—

It appears there are in the State 1,536 sugar plantations, of which there are 865 provided with steam-power, and 671 worked by horse-power. The produce of these plantations, during the last season, amounted to 247,923 hogsheads, the net weight of which is estimated at 269,769,000 pounds. This includes an estimated weight of about 12,500,000 pounds of wet sugar, which is taken from the bottom of the molasses cisterns. The molasses is estimated at 45 gallons to each 1,000 pounds of sugar, or in the aggregate about 12,000,000 gallons. Of the above 1,536 plantations, there are only 1,455 which are producing ones, and 81 which have been recently opened, having, as yet, made no crops. Of these latter 62 will produce crops to a limited extent next season, and 19 not until 1851-52. Since 1846 there have been erected in the State 255 engines and sugar-mills, most of them to replace old ones, or those previously worked by horse-power. Of these engines and mills, the foundries of Cincinnati have furnished 281, Pittsburg 37, Richmond 7, Baltimore 4, Louisville 3, New Orleans 10, Algiers, Louisiana, 2, Gretna, Louisiana, 6, and the Novelty Works, New York, 5. We presume that these engines and mills, on an average, cost at least \$5,000, and with the sugar kettles, &c., would make nearly \$2,000,000 which Louisiana has paid to her sister States for machinery alone, during the above period.

Some of the plantations have refineries, and others make their entire crop in white clarified sugar. Many of these latter have very costly apparatus and machinery, for which from 20,000 to 40,000, 50,000 and even as high as \$70,000, have been expended, which adds greatly to the above estimate of the amount paid by the planters of the State to citizens of the other States, for that kind of supplies.

Mr. Champonier estimates the loss to the sugar crop last year, by the different crevasses, at 18,000 hogsheads. Mr. Champonier says, from the best information he has been able to obtain from Texas, there are not less than 35 sugar plantations there, that will export about 10,000 hogsheads of the present crop, of 1,000 pounds each, and that the export from thence next year will probably be double that quantity.

SILVER MINES IN IRELAND.

The *Advocate*, an ably conducted Irish journal, gives the following notice of the "Gort Silver Mines," situated near the busy town of Gort:—

"The ore is situated close to the surface in some places—so close that we may be naturally surprised at the length of time during which all this wealth lay concealed and useless in the bowels of the earth. Four or five openings have been made in different portions of the rock, and two or three shafts have been sunk, more for the sake of enlarging the field for labor, and tracing the direction of the veins of ore, with a view to more extended operations, than for the sake of collecting the ore at present. On entering one of the galleries, which are reached by flights of steps cut in the rock, the visitor will, after proceeding a few yards through a narrow passage dimly lighted with candles, arrive at a larger chamber, the walls of which resemble a solid mass of crystalized lead or silver. Here he will find several miners at work, opening new galleries, and tracing the direction of the ore. The large lumps of ore are carried out in wheelbarrows, and the portions of limestone or talc attached to them are separated with a heavy hammer, after which the ore is broken on a stone slab, by women, with large hammers, resembling a common smoothing-iron fastened to a short stick. This gravel is sifted in copper sieves, and all the larger portions broken again, until the whole is reduced to the consistency of coarse sand. This sand is afterwards placed in a copper sieve, which is immersed in a cistern of water, and by a curious rotatory motion given by the miner to the sieve, the heaviest portions, containing all the valuable metal, fall to the bottom, and the lighter portions are skimmed off with an iron scoop from the top, and thrown away. The finer portion is again subjected to several washings, after which it is packed in casks for exportation to England. Specimens of the ore of this mine have obtained £55 2s. 6d. per ton when brought to this state, and the ton of ore sometimes contains 240 ounces of silver. We saw near £600 worth of ore ready, or almost ready for exportation. Some of the specimens of the ore were beautiful. Sometimes it resembles bright masses of lead freshly broken; sometimes its hue is orange or dark brown; and sometimes it assumes the most beautiful blue or green imaginable. One specimen, which we took from a great mass of clear white spar, twelve or fourteen feet in thickness and height, was beautifully tinted with light green, and resembled a piece of colored crystal. Some other specimens were of the richest deep blue; and sometimes the blue and the green would be found united in the same specimen. The silver is generally found in connection with the lead, but a few pieces of copper ore have been found, generally of a deep brown color, spangled with bright gold-colored marks. There are at present 150 men employed at the mines; but, as soon as the works are opened a little further, a larger number of persons will be employed. The difficulty of procuring anything not usually required in the neighborhood is a serious inconvenience and cause of delay. It was, for instance, found impossible to procure a leaden pipe of particular dimensions in Gort a few days since, for a portion of the works, in consequence of which much time was lost, until it could be obtained from Limerick, a distance of thirty miles; but these difficulties are incidental to all new undertakings, and can be remedied only by time. Mr. Collett, the proprietor, with a wise liberality, instead of engaging workmen at the ordinary wages of the country (6d. to 8d. per day) pays the common laborers at the rate of 1s., and the boys 8d. per day. He is consequently very popular, and has every reason to approve of the conduct of the men under his charge. He has engaged some Cornish workmen from England, who show a good example of industry to their Irish fellow-laborers, and the best feelings exist between them."

EARLY HISTORY OF PINS IN ENGLAND.

The *Edinburg Journal* says that pins were not known in England till toward the latter part of the reign of Henry VIII. The ladies used ribbons, loops, skewers made of wood, of brass, silver, or gold. The pin was at first so ill made that Parliament enacted none should be made unless they had double heads, "and have the heades soldered fast to the shanke of the pynne." After this act few were made. The "pynners" declare that "sens the making of the saide act there hath been scarcitee of pynnes within this realme, that the kynge's liege people have not been wel nor completely served of such pynnes." They pray that "in consideration thereof, it maie please the king that the act may be adjudged and deemed from henceforth frustrated and nihilated forever."

COTTON FACTORIES IN ALABAMA.

We seldom take up a paper published in the Southern and Western States of the Union, that does not contain some new development of their manufacturing industry. In a brief notice of the progress of Alabama in that direction, the *Tuscaloosa Observer* remarks:—

"We were shown last week some samples of Cottonades, Gingham, Checks, and Osnaburghs, colored and plain, made at the factory of Patton, Donegan & Co., Huntsville, which for quality and durability would compare with similar goods made in the manufacturing towns of the North. The colored goods were excellent, and were we not assured of the contrary, we should have pronounced them Eastern goods.

"The factory at Florence, owned by Martin, Weekly, & Co., is doing a thrifty business. It works 46 looms—turning 1,600 spindles, and produces 80,000 yards of cloth per week. Besides this large amount of cloth, it manufactures also 6,000 dozen of thread per week. The weekly consumption of cotton is about 16,000 lbs., averaging 750 bales of cotton per year.

"As an instance of the prosperity of factories in this region, a new one is about being established on the same stream, on the opposite side, which, it is calculated, will consume 40 bales of cotton per year.

"The factory in this city is about increasing its number of looms. At this time it works only 40 which are chiefly employed in manufacturing the four qualities of goods. In a few weeks the present number of looms will be increased to 72. The cloths made at this factory are in high repute and meet with ready sales."

COTTON MANUFACTURES AT COLUMBUS, GEORGIA.

The *Albany* (Georgia) *Patriot* furnishes the following description of cotton factories in the city of Columbus, in that State:—

The Coweta Falls Manufacturing Company's establishment occupies a large brick building, containing 2,500 spindles, which make from 1,400 to 1,800 lbs. of thread per day; 44 looms, making 1,800 yards of heavy Osnaburghs per day; 24 cotton cards, 3 wool cards, and 1 wool jack. They also manufacture a considerable quantity of linseys, which are more profitable than Osnaburghs and yarns. They employ from 115 to 120 boys and girls, from twelve years old and upward. Average wages, superintendent, \$1,000 per annum; overseers, \$30 to \$60 per month; weavers, \$15; carders, \$8; spinners, \$7 50. Power—one of Rich's center-vent wheels, five feet diameter capable of carrying as much more machinery. Profits on investment, 10 to 15 per cent.

Near this establishment is Carter's Factory, a large brick building, six stories high; cost \$10,200; privilege, \$6,000; calculated for 200 looms and 10,000 spindles. Estimated cost when completed, \$100,000; will employ from 300 to 400 hands.

Not far from this establishment is the Howard Manufacturing Company's establishment. The building is of brick, 50 by 125 feet, six stories. It contains 5,000 spindles, 103 looms—40 more to be added. Entire cost, \$100,000. They manufacture 15,000 yards of cotton Osnaburghs and sheetings per week, and 400 to 500 lbs. thread; employ 100 hands, from 12 years old and upward, one-third of whom are males; wages, from 12 to 75 cents per day for common hands; assistants, \$1 to \$1 25; overseers, from \$2 to \$2 50; superintendent, \$900 per year. Consumption, 1,200 bales of cotton. Past profits, under some difficulties, have varied from \$34 to \$100 per day; estimated future profits, 20 per cent on investment. There is an extensive machine-shop connected with this manufactory. We examined some bales of cloth made by this establishment, and found it of a very superior quality. The hands, male and female, had a general appearance of cleanness, health, and contentment. The proprietors of the manufactories have made arrangements for preaching, Sunday-schools, and a daily free school, for the operatives and their families.

STATISTICS OF PROVIDENCE (R. I.) MANUFACTURES.

According to the carefully prepared statistics of a gentleman in Providence, there are in that city four bleaching and calendering establishments, bleaching 18 tons of cotton cloth per day, including printing cloths, and employing 500 hands. There are printed each week 13,000 pieces of cloth, or 390,000 yards, employing 500 hands.

There are four cotton mills of 34,000 spindles, which make 58,000 yards of cloth per week, employing 730 hands. Two woolen mills manufacture 375,000 yards of satinets and jeans, consuming 126,000 pounds of wool annually, employing 120 hands. There are two screw factories that manufacture annually 700 tons of iron, employing 475 hands. Fourteen furnaces, consuming 5,000 tons of pig-iron for machinery, turn out 14,000 parlor, cooking, and counting room stoves, and 550 plows, employ 272 hands. There are three steam-engines employing 240 hands. One rolling-mill employs 275 hands, makes 30 tons railroad-iron, and three tons of wire per day from pigs and blooms. One edge-tool, nut, and washer factory manufactures annually 31,200 dozen plane irons, 100 tons hinges, 300 tons bolts, 200 tons nuts, 100 tons pickaxes and other forges—95 hands. One factory for manufacturing shoe-ties, corset-lacings, and braids, employs 37 hands, and consumes 1,200 pounds of cotton per week. Four planing machines plane 10,000,000 feet of lumber annually; make 75,000 boxes for goods, cradles, and sofas, and 100,000 sash-lights—employs 400 hands. Eight engraving shops for engraving copper rolls for printing cloths—80 hands. Three butt-hinge factories employ 30 hands, and manufacture annually 100,000 dozen hinges. There are in this city five brass foundries, and seventeen tin and sheet-iron shops: 16,000 weaver's reeds are manufactured from steel wire; 1,200 men are employed in making cotton and woolen machinery; 500 house carpenters, and 350 stone and brick masons, here find employment. There are 65 steam-engines in operation. There is paid annually for labor in the manufacture of jewelry over \$100,000.

MERCANTILE MISCELLANIES.

SALESMEN vs. SALESWOMEN IN RETAIL DRY-GOODS STORES.

A correspondent of the New Orleans *Commercial Bulletin*, writing from Philadelphia, thus contrasts the custom which prevails in that city, touching the "attendance" in retail dry-goods stores, with that which exists in New York, and, indeed, in most other cities. Being a little "Quakerish" in the matter of "woman's rights," and with a hearty desire of seeing their "wrongs" redressed, we have concluded, with the fear of "a fellow standing six feet in his stockings, or a neat dapper-dandy of less dimensions, dressed to kill," before our eyes, to lay the remarks of the *Bulletin's* correspondent before the readers of the *Merchants' Magazine* for the especial edification of the retail dry-goods trade in New York, Boston, etc. If our readers think they discern anything personal in the letter-writer's remarks, let the censure of such as feel aggrieved fall where it belongs, for the editor of the *Merchants' Magazine* is invulnerable on that point, as it is systems, not men, that it becomes him to attack, or to lend his humble and imperfect aid in reforming:—

There is a striking difference between this city and New York in the attendance on their retail dry-goods stores. In the former the attendants are all or nearly all females; in the latter, all or very nearly all men. How much more *preferable* and *suitable*, in every respect, is the Philadelphia custom. The avenues of employment for respectable females are so few and limited, in comparison to those for men, that they should not be interfered with by the latter. How much more appropriate, too, is the above occupation for women than for men! I almost lose my temper when I see a fellow standing six feet in his stockings, or a neat dapper-dandy of less dimensions, "dressed to kill," measuring out a yard of ribbon or tape, or descending on the color or shade of a piece of silk, placing it in folds to hold in different lights, in order to show "how beautifully it would make up." I consider it only one remove from a man-milliner, who will bow up the ribbons, and sew them and the artificial flowers on a bonnet, put in the gauze lining and attach the strings, and then place it on a lady's head and declare "how charming it looks," and "how well it becomes her." Bah! How much more *comme il faut* is it to have females behind the counters, who are ladies in dress, appearance, manners, and conversation, and how much more agreeable one would suppose it would be for the ladies, in their shopping excursions to be thus waited upon by their own sex! I have no doubt that for the *origin* of this custom Philadelphia is indebted, as it is for many other good things, to Quaker influence on the first settlement

of the city. The Quakeresses are "some" in their society. They take an active part in the management of its affairs, have business "meetings," monthly and annually, the same as the men, and entirely distinct from them, and are much more business-like folks in private affairs than the females of any other class of society. Hence, I say that I have no doubt they set the example of attending stores in the early days of the city, and from that it has become a general custom down to the present day.

The custom is not only excellent of itself, but it exercises a great and beneficial effect upon the general community of a city, as regards its comfort, wealth, and I might perhaps say *character*. It is hardly possible for me to make any correct estimate of the number of females that find constant and, I may say, profitable employment in this manner in such a city as Philadelphia, but it cannot be less than 8,000 or 10,000, as there must be some thousand of stores on which they attend. In addition to the parties themselves, how many, connected with them, have their means and comfort increased by the amount which they thus earn honestly and respectably, and how would other branches of female employment, such as millinery, sewing, etc., be depressed, if all these additional competitors for employment in them were obliged to seek these occupations, causing great pressure and injury to those already engaged in them. Not only does this mode of thus employing females benefit themselves, their families, friends, and the community, but it adds greatly to the wealth of the latter, by releasing an equal number of able-bodied men from this "woman's work," to employ their time and talents in more suitable and probably far more profitable business. If we estimate the value of the labor of each of these 10,000 men, or what he could earn for himself, at only five hundred dollars, it would make an aggregate of *five millions of dollars* annually, and it probably makes even that *difference per annum over and above* what these females would, or could earn for themselves, were their present situations filled by men. The effect of this, in a course of years, would be very sensibly felt in the wealth of a city, as I have no doubt will be the fact, as between Philadelphia and New York.

Some years since I thought the New York custom was making considerable progress in this respect in Philadelphia, and that the "*he-biddies*" were becoming too numerous in dealing out "tape and bobbin," but on the present visit, so far as my observation has extended, the "petticoats" are again in the decided ascendancy, and in full possession of the scissors and yard-stick. I think it is an imperious duty on the part of the ladies of Philadelphia to stand up for and protect their sex on this subject, which they can do most effectually by refusing to patronize any retail fancy or dry-good store where they have male attendants *at the counters*. Let them be as beads of the establishment, or as book-keepers or clerks, to attend to the out-door work, but not as "counter-jumpers." The ladies (God bless them) can do anything they attempt, and I hope those of Philadelphia will not omit this *duty*.

THE VANILLA OF THE ISLAND OF BOURBON.

Vanilla comes to us chiefly from the maritime parts of Mexico; it grows also on the banks of creeks sheltered by the mango trees, which are sometimes overflowed by the high tides, in Colombia, and Guiana. Endeavors have also been made to cultivate it in Cayenne, Santo Domingo, and the Isle of France. The attempts have also been followed at different times in the Island of Bourbon. M. Menier has recently received two boxes of vanilla from this colony. The vanilla of the Island of Bourbon is certainly furnished by the same vegetable as gives it in Mexico. The husks are similar in all essential characters. They are of the height of 15 to 18 centimeters, and from 6 to 8 in thickness—shrivelled, furrowed longitudinally, shrunk at each end and curved at their base. These husks are rather soft, viscid, and of a reddish-brown color; they possess in a high degree the characteristic odor of vanilla; they *givent* with ease. The Bourbon vanilla differs from Mexican only in the less essential points as follows: It is generally less *étouffée*, shorter by 1 or 2 centimeters, and thinner by 1 or 2 millimeters. Its color is redder and less brown; it is dryer and less unctuous. It is chiefly the extremities which are dried up and contracted, and which are most deficient in that suppleness which distinguishes the Mexican vanilla. These differences, which are very slight, are sufficient to depreciate the commercial value of Bourbon vanilla. We are convinced that they are attributable to the mode of preparation or preservation; for example, the manner in which the husks have been dried and covered with a layer of oil. But for actual use, we have ascertained that this vanilla is in no respect inferior to the best commercial vanilla. It has long been known that on account of the

high price of vanilla its culture has long been a matter of much interest. We will show, further on, that the applications of this admirable aromatic are more important than they are commonly considered. But the difficulties must be greater than anticipated for this culture, in different countries, to be still a matter of experiment. However, in the green-houses of Liège, M. Morren has obtained good results in the cultivation of vanilla. He states that the different stems which he has cultivated have produced him 600 francs (£24) in one year. One plant, grown in the green-house of the Museum at Paris, which was more than 3 meters in height, gave, in 1840, 117 husks of vanilla of the sweetest odor, which ripened only at the end of the year. The principal difficulties in the cultivation of vanilla are:—1. Proper selection of species of the best variety. 2. The necessity for a high temperature. 3. Determination of the conditions most favorable for the development of this plant. 4. The good preparation of the husks. We are not yet perfectly and indubitably acquainted with the species or variety which furnishes the best vanilla of commerce. The *vanilla aromatica* of Swartz, figured by Plummier, a figure related by Linnæus in his *epidendrum vanilla*, does not appear to be the origin of the vanilla of commerce. Indeed, Plummier says that his plant, which is from Santo Domingo, is without odor, its fruits are small, thin, and cylindrical; they do not, therefore, resemble vanilla. On the other hand, MM. Splitgerber and Morren assert that the long vanilla of commerce is furnished by the *vanilla planifolia*. What gives great probability to this opinion is, that this same species, cultivated in the green-houses of Liège and Paris, artificially fecundated by the pollen of another species, furnished husks comparable to those of the best commercial vanilla. It is evident, therefore, that there are still doubts to be cleared up as to the best species or variety to be cultivated. The necessity for a high temperature confines it to the green-houses, which should be fine large and airy ones. Except in special cases, we cannot, for this reason, hope for profit from this culture. The conditions most favorable to the development and fructification of vanilla are far from being properly appreciated. We know all the difficulties which the cultivation of the orchidæ presents—that of vanilla seems more difficult than that of others of the same family. Its stalks are provided with adventitious roots, which implant themselves in the bark of the mango trees, periodically watered by the high tides. May not vanilla require, for its proper development, this tree or one congeneric to it, favorable to its parasitism? May not the salts of the sea likewise be favorable to the development of mangoes, and, consequently, to that of vanilla? In the Isle of Bourbon and in Guiana the principal conditions which we have just pointed out may be easily fulfilled. We think, therefore, that the cultivation of vanilla ought to be regular and certain, and we are confident that the consumption would keep pace with the production. We are about to study this latter subject. We entirely coincide with the opinion of MM. Merat and De Lens, who say (*"Dictionnaire de Matière Médicale,"* t. vi., p. 842,) that "vanilla, added to many of our foods, imparts to them admirable delicacy and sweetness, and renders them proper for re-establishing the digestive powers when they are relaxed." We may add that vanilla contains a balsamic oil, which possesses valuable properties, (which M. Deschamps has found in the buds of the poplar and in benzoin,) opposing the rancidity of fatty bodies. The double utility of vanilla in chocolate is, therefore, evident. Taking into consideration the delicious flavor of this aromatic, it is certain that much profit might be derived from it for preserving food if its price were moderate and regular. The sweetness of its perfume recommends it in pharmacy for disguising the rancidity of several pommades.

INGENIOUS SYSTEM OF SWINDLING.

The London police recently apprehended a man on suspicion of having been engaged in plundering pawnbrokers. The parties had been, it seems, in the habit of sending to auction rooms, for sale, cases of very handsome medals and coins, finely finished, to represent gold. On the day of sale some of the party attend, bid a high price for the article, and, of course, become the purchasers. They then request the auctioneer to give a guarantee that they are gold, and he, not having any suspicion, at once gives the necessary certificate. The next step of the swindlers is to go to a pawnbrokers and pledge the articles for the price they could fetch if they were gold, at the same time producing the auctioneer's certificate, which completely throws the pawnbroker off his guard.

THE BOOK TRADE.

- 1.—*Principles of Medical Jurisprudence, designed for the Profession of Law and Medicine.* By AMOS DEAN, Counsellor at Law, and Professor of Medical Jurisprudence in the Albany Medical College. Albany: Gould, Banks & Gould. New York: Banks, Gould & Co.

About the year 1806, we think it was, that among the items of the British Budget, a provision was inserted by ministers for a Professor of Medical Jurisprudence in the University of Edinburg. Whereat a great outcry of the opposition, and much wit from the brilliant Canning, who could only account for such a move on the part of the Fox Ministry, on the supposition that they had said to themselves, "Come now, we will show them what we can do, they shall see we can do what we please; we will establish a Professorship of Medical Jurisprudence." Such was the public estimation in the beginning of the 19th century of Medical Jurisprudence, a science having the most direct bearing upon those parts at once of Law and Medicine, which most directly affect public rights, and the most important civil relations. Medical Jurisprudence is a modern science, but it has grown rapidly; after Commercial Law it is, perhaps, the most rapidly expanding branch of Jurisprudence. And it is a matter of some pride, that to American learning it is largely indebted for its development. Beck's Elements of Medical Jurisprudence as it was modestly called, which reached its fifth edition, we think, in 1835, was the first methodical treatise on the subject, and may almost be considered to have laid the foundation of the science as now studied. The work of the multifarious Chitty is rather a book for the medical than legal gentleman; but it contains too much law for doctors. Willcock's Medical Law is an amusing misnomer, for it treats, not of State Medicine, as the Germans called it, but of the legal rights and remedies of physicians, teaching the doctors' law, in fact, and lawyers' medicine. The work of Professor Dean, (which is published, by the way, in Messrs. Gould & Bank's very superior style,) is similar in the selection of topics to the great work of Beck. But the arrangement is, we think, more exact and scientific. The design of the work, as indicated by the title, is to exhibit the science of Medical Jurisprudence, not so much to enter into details, as to give the leading principles, properly classified, with sufficient illustration to bring them clearly out. This we think Professor Dean has succeeded in doing, though neither our knowledge of the two sciences it discusses, nor our examination of the work, enables us to speak with such confidence and commendation as the merits of it call for. The style is precise and clear, the arrangement of the book is logical, and the topics are discussed with detail sufficient to illustrate the principles without embarrassing the mind. The period that has elapsed since the publication of Beck's work, has contributed much to a science of such rapid growth as Medical Jurisprudence: and the position as professor of it, which the author has occupied for eleven years past, has enabled him to avail himself of all the new material which the last quarter of a century has furnished, and he has done so, as far as we can judge, with care and discrimination. The subject of mental alleviation which is daily growing in importance and necessary increased attention, is treated with fulness, and the late cases are noted and commented upon.

- 2.—*The Farmer's Every-day Book; or Sketches of Social Life in the Country; with the Elements of Practical and Theoretical Agriculture, and Twelve Hundred Laconics and Apothegms, relating to Ethics, Religion, and General Literature; also Five Hundred Receipts on Domestic and Rural Economy.* By JOHN L. BLAKE, D. D. 8vo, pp. 654. Auburn, N. York; Derby, Miller & Co.

This work is designed to embrace the popular elements of agriculture generally, so condensed as to be within the reach of persons possessing only limited pecuniary means; so perspicuous as to be understood and applied by individuals of the most common education; and especially so analyzed and arranged that an examination of its several parts may be made in the short intervals of leisure under the control of every farmer, without intrusion upon his hours appropriated to ordinary manual labor. The author is not only a practical farmer, but a man who knows how to write an intelligible and agreeable book, apart from the immediate object for which it is designed. This must prove the most popular work that has yet appeared on the subject of agriculture.

- 3.—*The Life of Christ, from his Birth to his Ascension into Heaven. With the Lives of the Apostles and Evangelists.* By the REV. JOHN FLEETWOOD, D.D.S. 4to., part 1., pp. 32. New York: Tallis, Willoughby & Co.

We have received the first part of a new edition of this popular work. Hitherto the illustrations to such works as the present have been selections from miscellaneous paintings of the old masters, produced in various countries, by various hands, and at various times, disfigured by all the anachronisms and incongruities of those times, and having no likeness whatever to each other, which will be seen by reference to all other illustrated editions of the Life of Christ. The advantages, then, of a series by the same hand, wherein can be maintained an accordance throughout, as well as in the personages as accessories, must be evident, and will not, it is thought, fail to be appreciated. It has been the ambition of the publishers to embellish the present edition of the "Life of Christ" in a style worthy of its all-important subject; and to submit to the enlightened American public such a book as has not yet been produced in this or any other country. The work will be completed in twenty-five parts, each part to contain two original illustrations in steel. The first part contains a well executed picture of "our Saviour."

- 4.—*The Conquest of Canada.* By the Author of "Hochelaga." 2 vols. 12mo. pp. 350 and 366. New York: Harper & Brothers.

The present volume contains a comprehensive history of the early settlement of Canada by the government of France and also the general circumstances which marked its progress down to the year 1760, when the entire territory was surrendered to the dominion of Great Britain. The author has exercised commendable industry in investigating the original records of the history of that part of the continent, and has presented the result of his researches in an agreeable and satisfactory shape. The causes which have borne upon that portion of the British possessions in America are recounted in a readable style as a permanent record of history. The work is highly valuable, and will supply much interesting and instructive information, not only to the numerous residents of the province, but to all those who are desirous to know the steps by which the territory has advanced to its present condition and importance.

- 5.—*A Second Book in Greek; Containing Syntax—with Reading Lessons in Prose—Prosody, and the Dialects; forming a sufficient Greek Reader, with a Vocabulary.* By JOHN MCCLINTOCK, D.D. 12mo., pp. 347. New York: Harper & Brothers.

This work is one of quite a numerous class, which are making their appearance at the present day, and which are furnished with every conceivable facility under the form of notes, translations, &c., to make a youth a good Greek scholar in the easiest manner. With many, the excellence of this method—so abounding in "helps"—over the old system, where the student was forced to earn by close labor what he learned, has been quite questionable. With those who approve of the method this will be found a very useful and valuable book for beginners.

- 6.—*Pictorial Field-Book of the Revolution; or Illustrations by Pen and Pencil of the History, Scenes, Biography, Relics, and Traditions of the War for Independence.* By BENSON J. LOSSING.

Two numbers of this new and unique work have been published. It is to be completed in about twenty numbers, of forty-eight large octavo pages. It is a pictorial and descriptive record of a journey recently performed by Mr. Lossing, the artist and author, to all the most important historical localities of the American revolution; thus combining, as it were, in its plan, the characteristics of a book of travel, and a history. The engravings are from drawings made on the spot, of the scenes described in the letter-press. It promises to be, when completed, a work of rare merit; and from our knowledge of the character and ability of the author, we have entire confidence that its promise will be fully realized.

- 7.—*The Phantom World: The History and Philosophy of Spirits, Apparitions, &c.* From the French of ANGLESTINE CALMET. With a preface and notes by HENRY CHRISTMAS. 12mo., pp. 444. Philadelphia: A. Hart.

The author of this work was led to his undertaking by a desire to form to himself a just idea of all that is said on the apparitions of angels, of the demon, and of disembodied souls; also to see how far the matter was certain or uncertain, true or false, known or unknown, clear or obscure. He has accordingly collected a vast amount of facts on the subject, which are presented to the reader with much simplicity of thought and manner.

- 8.—*Annals of Pennsylvania, from the Delaware.* By SAMUEL HAZARD. 8vo., pp. 664. New York: C. L. Francis & Co. Philadelphia: Hazard & Mitchell.

The main objects of this work has been, by the introduction of facts, documents, and even personal correspondence, of every variety of form and importance, to trace the settlements on the river Delaware from their commencement, and by them to show the character and circumstances of the different nations, who, for seventy years had possession before the arrival of William Penn, and the state of the country when he first appeared. His course, also, from the time of receiving the charter to his taking possession of the country and establishing the government, has been traced by collecting and introducing all his public acts connected with that period. The volume embraces the years included between 1609 and 1682, and it contains a large portion of the early history of New York, New Jersey, Delaware, and Maryland. The author has prepared this work under the form of annals, as best suited to the introduction of isolated facts, whose connection with each other is more apparent by such a regular chronological series of events. It is truly by the prevailing practices and sentiments of a people, derived from their own records and correspondences, that we can best ascertain their habits, manners, and customs. Here we have documents and letters which we of the present day would never have conceived of as in existence.

- 9.—*Mohammed, the Arabian Prophet.* A tragedy in five acts. By GEORGE H. MILES. 12mo., pp. 155. Boston: Phillips, Sampson & Co.

It will be recollected that a year or two since Edwin Forrest offered a prize of one thousand dollars for the best original tragedy in five acts. Nearly one hundred competitors sent in their manuscripts; and the present volume is the one to which the prize was awarded. The design of the play is to explain the life of Mohammed from the age of forty to his death, a period of twenty years. The play has passages of great power and beauty; but the fact that it was selected from a hundred manuscripts, as the best, by competent judges, speaks most emphatically of its merits as a whole; but its great merit lies in giving (which will be regarded by many) the true character of the great founder of Islam, so imperfectly understood.

- 10.—*Lake Superior: Its Physical Character, Vegetation, and Animals, compared with those of other similar regions.* By LOUIS AGASSIZ. With a Narrative of the Tour, by J. ELLIOT CABOT; and contributions by other scientific gentlemen. 8vo. pp. 428.

This work contains the results of a scientific expedition to Lake Superior, during the summer of 1848. At the head of the expedition was Professor Agassiz, whose high attainments in science are already well known. The work is drawn up in a narrative form, which is interspersed with lectures by the Professor, on various points of Natural history, suggested by the features of the country through which they passed. It also contains papers on various points more closely connected with the region around Lake Superior, which to the scientific reader must possess a high interest. It is embellished with illustrations of the country, and also of many of the insect and finny tribes found there.

- 11.—*Montaigne; the Endless Study, and other Miscellanies.* By ALEXANDER VINET. Translated, with an Introduction and Notes, by ROBERT TURNBULL. 12mo., pp. 430. M. W. Dodd.

This volume contains a collection of the religious miscellanies of Vinet, the author of "Vital Christianity"—a work now out of print. The present volume includes some portions of that work in a modified form, and some of the finest things that Vinet wrote, and on themes of the highest moment. There is in these writings the same searching analysis and profound thought that characterise the productions of the late John Foster, united to a flowing eloquence to which that celebrated essayist can lay no claim. Vinet is regarded as greatly superior to Foster in acquired knowledge, and especially in an intimate familiarity with general literature and speculative philosophy.

- 12.—*Norman Leslie.* A tale. By C. G. H. 12mo., pp. 286. New York: D. Appleton & Co.

This is a new story under an old and familiar name. Norman Leslie, the hero of the present tale, was one of those distinguished Scottish nobles who took the field for freedom of conscience and his country's rights about the time of the famous John Knox. The narrative is related with a thrilling interest, and with great power and felicity of expression.

- 13.—*Poetry for Schools.* By ELIZA ROBBINS. 12mo. pp. 396. New York: C. S. Francis & Co.

This work is designed for reading and recitation in schools. It consists of selections from the best poets in the English language, both English and American. The object of its compilation, distinct from others of the same class, is, to furnish a commentary upon the articles selected, of such a nature as to lead the young to inquiry, and supply the helps which the understanding needs in order to make the finest writers intelligible. In this point of view it must be of much greater benefit to youth than is either expected or usual with school-books. The author being a teacher herself has well adapted her comments to the understandings of those who are pupils.

- 14.—*Memoirs of the House of Orleans.* By W. COOKE TAYLOR, LL. D. 2 vols. 12mo. pp. 417. Philadelphia: A. Hart.

This work abounds in sketches and anecdotes of the most distinguished characters in France during the seventeenth and eighteenth centuries. It is chiefly devoted to the private and domestic history of the reigning families during that period, and it presents scenes and actions of weakness and profligacy which would be incredible if they were not related by the most respectable authority. It is written in a vigorous and animated style, which constantly enlivens the interest of the reader, and is issued by the publishers in a very neat and handsome form.

- 15.—*Dr. Johnson: his Religious Life and Death.* 12 mo., pp. 405. New York: Harper & Brothers.

Every one who feels an interest in anything relating to Dr. Johnson, will be pleased with this book. The author has collected together everything in the life of Johnson which has any bearing upon his religious opinions. This information is presented in a very agreeable and attractive form, and it represents the "literary giant" as possessing a spirit wholly imbued with the convictions of the truth of the great principles of Christianity, and conforming his life to their injunctions.

- 16.—*Heroines of the Missionary Enterprise: or Sketches of prominent Female Missionaries.* By DANIEL C. EDDY. 12mo., pp. 358. Boston: Ticknor, Reed, & Fields.

This small volume contains the names of several of our country women who have been most distinguished as missionaries. The object has been to give a series of brief memoirs, in which the lives of ardent Christians shall be unfolded; to impart instruction in reference to the cause of missions; and to do justice to the memory of these missionaries. The subjects of the memoirs are individuals who have belonged to various sects, but in this volume they are spoken of independent of all denominational ties.

- 17.—*The Art of Book-Binding, its Rise and Progress; including a Descriptive Account of the New York Book-Bindery.* New York: E. Walker & Sons.

This neatly printed and handsomely bound volume furnishes some information touching "the art and mystery of book-binding" in general, and a description of the publishers bindery in particular. Its chief object, we take it, is to extend more widely the information that E. Walker & Son have a very extensive bindery in the city of New York, and that they are prepared to bind any number of books in a style to suit every taste—cultivated of course.

- 18.—*New York: Past, Present, and Future.* By E. PORTER BELDEN, M. A. 12mo., pp. 141.

This is a descriptive work of the city of New York, and the best one of the kind that has ever been published. All the departments of the city contributed their aid to furnish the author with any assistance he might need; and the work, as regards the past and present, is as nearly complete as one within its limits can be made. It is embellished with several neat illustrations of public buildings in the city, and accompanied with an advertiser of business houses, consisting of two hundred pages.

- 19.—*The Fall and Decline of the Roman Empire.* By EDWARD GIBBON. Vol. 3. 12mo. pp. 643. New York: Harper & Brothers.

This edition is furnished with Milman's Notes and a complete index, and sold so cheap that the price is no consideration. The style of the work is good, the paper clear and white, and the execution quite neat. Of its value as a historical work every one is aware without a word from us.

- 20.—*Prayers for the use of Families, chiefly selected from various Authors; with a Preliminary Essay, together with a Selection of Hymns.* By ALBERT BARNES. 12mo., pp. 360. Philadelphia: Thomas Cowperthwait & Co.

There are probably much better men than ourselves who have faith in the efficacy of formularies of prayer. There are many perhaps, who are made better by their use. Such persons need, and should use them. The "Lord's Prayer," as it is, is a perfect model; it is as beautiful in conception, as it is comprehensive in its scope. Its simple words are used by every Christian tongue—it is Christian without being sectarian. Not so with all the forms that emanate from the ministers of the different sects. They often offend the taste, or clash with preconceived opinions. The close of the Trinitarians prayer does not harmonize with the Unitarians ideas, and *vice versa*. Mr. Barnes, (a learned divine, and a good man,) the compiler of this volume, has prefaced it with a well written preliminary essay, in which he endeavors to show the importance of the duty of using forms, and to meet the usual excuses made for neglecting them.

- 21.—*The Dyer and Color-Makers Companion: containing upward of Two Hundred Receipts for making Colors on the most approved Principles, for all the various Styles and Fabrics now in Existence, together with the Scouring Process, and Plain Directions for Preparing, Washing-off, and Finishing the Goods.* 18mo., pp. 104. Philadelphia: Henry C. Baird.

This little manual is divided into sections, and the several receipts are classed under different heads, as follows:—Mordants for Madder-dyeing—Steam Colors for Linen and Cotton—Fast Colors for Washing in Lime and Soda Liquors—Chemical Colors—Resisting Blue-vat Colors—Turkey-red Dyeing—Orange Dyeing—Colors for Yellow Grounds—Silk Dyeing—Mousseline d'laine Printing—Standards for various Shades, French, Oranges, and Miscellaneous Receipts. This manual will be, we apprehend, regarded as a perfect *vade mecum* for manufactures of cotton, linen, silk, and other fabrics.

- 22.—*Elements of History, Ancient and Modern.* By JOSEPH E. WORCESTER, LL. D. A new edition, revised and enlarged. Boston: Wm. J. Reynolds & Co.

The first edition of this work was published in 1826, since which it has passed through numerous editions, and acquired a wide and deserved popularity. The present edition has been revised and enlarged. Its adoption by the best schools in the large towns and cities of Massachusetts, as Boston, Salem, Worcester, &c., and by the Normal School of Albany, and many other principal schools throughout the country, furnishes pretty conclusive evidence of its great merit as an elementary history.

- 23.—*The Rebels: or Boston before the Revolution.* By the author of "Hobomok." Boston: Phillips, Sampson & Co.

This is a reprint of a fictitious narrative from the pen of Mrs. Childs. The fact that one edition was sometime since exhausted, and another is now called for, is abundant evidence of the attractiveness of this book. Mrs. Childs, has since this work originally appeared in print, obtained a new class, as well as a larger circle of readers.

- 24.—*Pictorial Edition of the Poetical Works of Lord Byron.*

We have received parts 19, 20, 21, and 22 of George Virtue's London edition of this work. Each part is illustrated with two engravings on steel, drawn from some of the most striking and graphic passages in the works of the great poet of the nineteenth century. The copious notes by Lord Jeffrey, Thomas Moore, and others, add materially to the value of the present edition, which is probably the best that has ever been offered to the American public.

- 25.—*Shakspeare's Dramatic Works.* No. 18. Boston: Phillips, Sampson & Co.

The present number contains the play of Richard III., and is illustrated with a portrait of the queen to that monarch. We discover no falling off in the style in which these engravings are executed—they may justly rank among the best specimens of the arts of design and engraving.

- 26.—*Eleanor: or Life without Love.* By HANNAH GARDENER CREAMER. 12mo., pp. 201. Boston: James French.

A handsomely printed book, and, judging from its title, the character of the author, and the publisher, one that will interest while it imparts a useful lesson of domestic life.

- 27.—*John Howard, and the Prison World of Europe.* From original and authentic documents. By HERWORTH DIXON. With an introductory essay. By RICHARD W. DICKINSON, D. D. 12mo, pp. 401. New York: Robert Carter & Brothers.

The increasing interest everywhere manifested in prison reforms, and in the reformation of criminals, will doubtless tend to awaken a fresh interest in the life and character of Howard, of whom few men, even though well read, know but little, beyond the vague notion that he was a very good man, who went about the world dispensing blessings. His former biographers, it seems, were wanting in that knowledge of the subject which was necessary to enable them to assign him his position, as the father of prison science. This the author of the present work has attempted to do, and after making himself master of all the sure facts of the case which have come down to us, biographically and traditionally, his plan was to saturate himself, as he informs us, with Howardian ideas, and then strive to reproduce them *living*, acting, and suffering, in the real world.

- 28.—*The Painter, Gilder, and Varnisher's Companion: containing Rules and Regulations in Everything Relating to the Arts of Painting, Gilding, Varnishing, and Glass Staining; numerous Useful and Valuable Receipts; Tests for the Selections of Adulterations in Oils, Colors, &c., and a Statement of the Diseases and Accidents to which Painters, Gilders, and Varnishers are peculiarly liable, with the Simplest and Best Methods of Prevention and Remedy.* 18mo, pp. 189. New York: Henry C. Baird & Co.

It is the design of this volume to give a clear, concise, and comprehensive view of the principal operations connected with the practice of the trade named in the title-page. It appears to embody, in as little compass and as simple language as possible, the present state of knowledge in the arts of painting, gilding, and varnishing, including all the information derived from the numerous discoveries in chemistry. Rejecting all that appeared foreign to the subject, the compiler has omitted nothing of real practical worth.

- 29.—*Rules of Proceeding and Debate in Deliberative Assemblies.* By LUTHER S. CUSHING. Boston: W. J. Reynolds & Co.

A manual that should be read and studied by every person who wishes to participate in national or State Legislation, or in public meetings of any kind. The fact that the work has already passed through nine editions of one thousand copies each, affords pretty conclusive evidence of its popularity and utility. It is, unquestionably, a correct manual of the rules of proceeding and debate.

- 30.—*The Vale of Cedars; or the Martyr.* By GRACE AGUILAR. 12mo, pp. 256. New York: D. Appleton & Co.

This is an exceedingly interesting tale, the scene of which is laid in Spain during the reign of Ferdinand and Isabella. The heroine is a Jewess, who sacrifices honors wealth, and station, sooner than surrender her faith in Judaism, or adopt the principles of Christianity. The work is written with great power, and is full of heroic and noble sentiments, at the same time that the peculiar features of the narrative enable the author to portray, in glowing colors, some of the deepest and purest passions of the heart.

- 31.—*The British Colonies: their History, Extent, Condition, and Resources.* Illustrated with maps of each possession. By R. MONTGOMERY MARTIN. New York: John Tallis & Co.

This beautiful series has reached its eleventh part. The statistic commercial information is brought down to the latest time. Every part is illustrated with a map, or a portrait of some distinguished personage connected with the history of the colonies. It promises, when completed, to furnish the most complete and perfect history of the kind extant.

- 32.—*Illustrated Atlas, and Modern History of the World; Geographical, Political, Commercial, and Statistical.* Edited by R. MONTGOMERY MARTIN. New York and London: John Tallis.

We have, in a former number of our journal, spoken of this work in terms of high commendation. Parts from 23 to 26, inclusive, before us, confirm all that we have heretofore said. It will undoubtedly form, when completed, one of the cheapest and best atlases in the market.